Oceanographic Observations in Alice Arm, B.C., May 1981

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Le contenu des rapports traduit les opinions de l'entrepreneur et ne reflète pas nécessairement la politique officielle du ministère des Pêches et des Océans.

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Hydrography and Ocean Sciences #8

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by

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ABSTRACT

Ford, L. and M. Nicoll, 1983. Oceanographic Observations in Alice Arm, B.C., May 1981. Can. Contract. Rep. Hydrogr. Ocean Sci: 8: 115p.

From May 20 to 23, 1981, the Coastal Zone Oceanography Group of the Institute of Ocean Sciences obtained ninety-four Guildline CTD casts (conductivity, temperature and pressure) from Alice Arm, Portland Inlet and Observatory Inlet. Interact Computing Services, under the supervision of D.J. Stucchi and D.M. Farmer performed the editing, calibrating, listing and plotting of these data. This report provides an index for these data, description of the plotting programs used, and the profile, contour and displacement plots of these data.

RÉSUMÉ

Ford, L. and M. Nicoll, 1983. Oceanographic Observations in Alice Arm, B.C., May 1981. Can. Contract. Rep. Hydrogr. Ocean Sci: 8: 115p.

Du 20 au 23 mai 1981, le Groupe d'océanographie de la zone côtière de l'Institut des sciences de la mer a effectué 94 palanquées Guildline de CTP (conductivité, température, profondeur) dans le bras Alice, l'inlet Portland et l'inlet Observatory. Le personnel de Interact Computing Services, sous la direction de D.J. Stucchi et D.M. Farmer, a exécuté la préparation, l'étalonnage, le listage et le traçage de ces données. Le présent rapport renferme un catalogue, une description des programmes de traçage utilisés et les profils, courbes de niveau et déformations perspectives pour ces données.

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1. INTRODUCTION

Personnel from the Coastal Oceanography Group of the Institute of Ocean Sciences obtained a series of CTD observations in Portland and Observatory Inlets and Alice Arm from May 20th to 23rd, 1981. These observations were taken from the CSS *VECTOR* using a Guildline 8700 analogue CTD.

In total ninety-four CTD profiles (down casts only) were obtained. This data set is divided into 7 subsets. Subset A consists of stations taken in Portland Inlet and across the Observatory Inlet sill. Subsets B and C are stations taken along the axis of Alice Arm. Subsets D, E, F and G are time series at four different stations in Alice Arm.

These measurements were obtained for two reasons, (a) to examine the short term variability of water properties in Alice Arm and (b) to examine horizontal gradients across the Observatory Inlet sill and in Alice Arm.

Contained in this report are station charts and locations, an index of the calibrated data (by station and by pass number), description and sample runstreams for the profile, contour and displacement plotting programs. The last section of the report contains the plots.

2. LOCATION AND STATION CHARTS

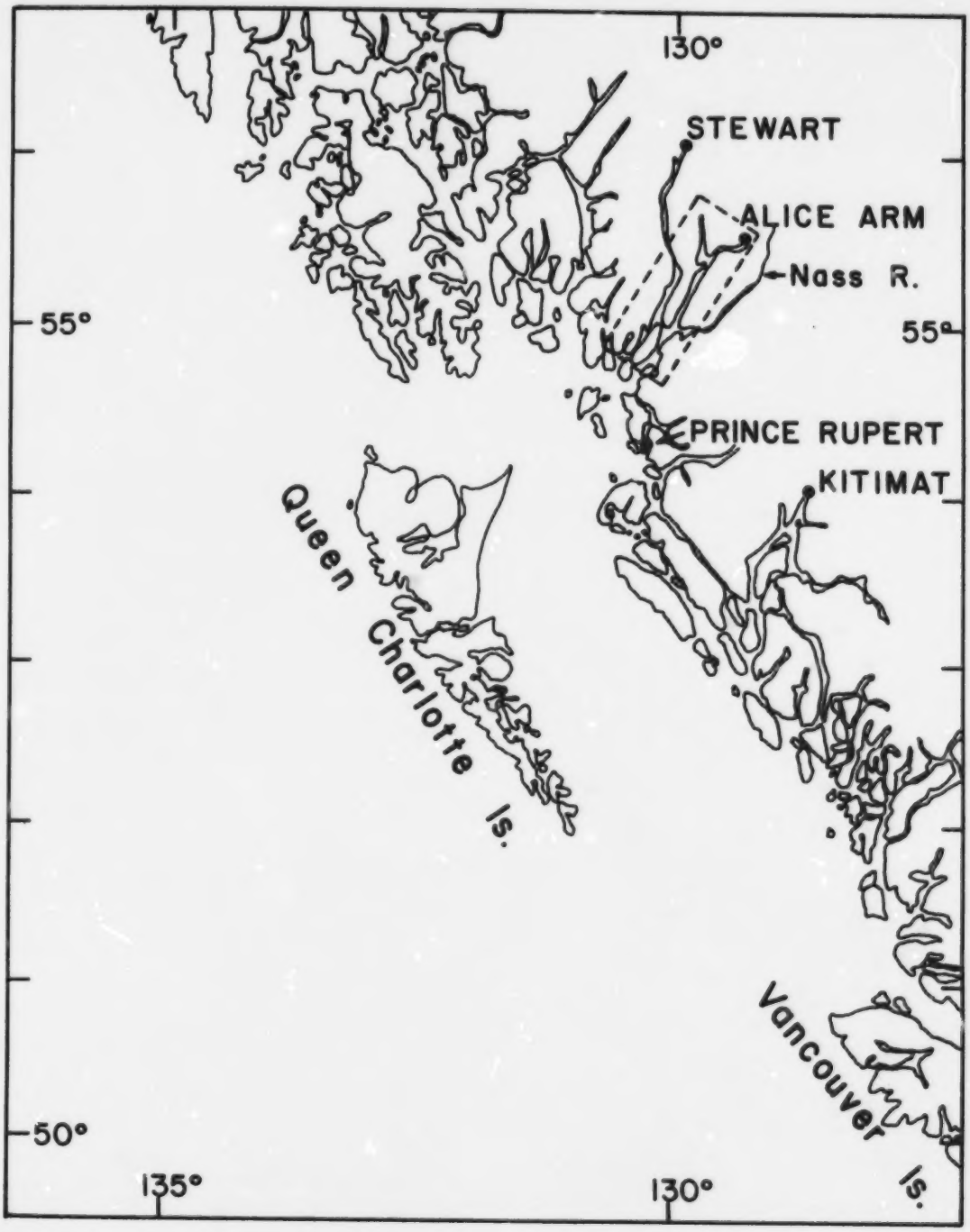


Figure 1 General location map.

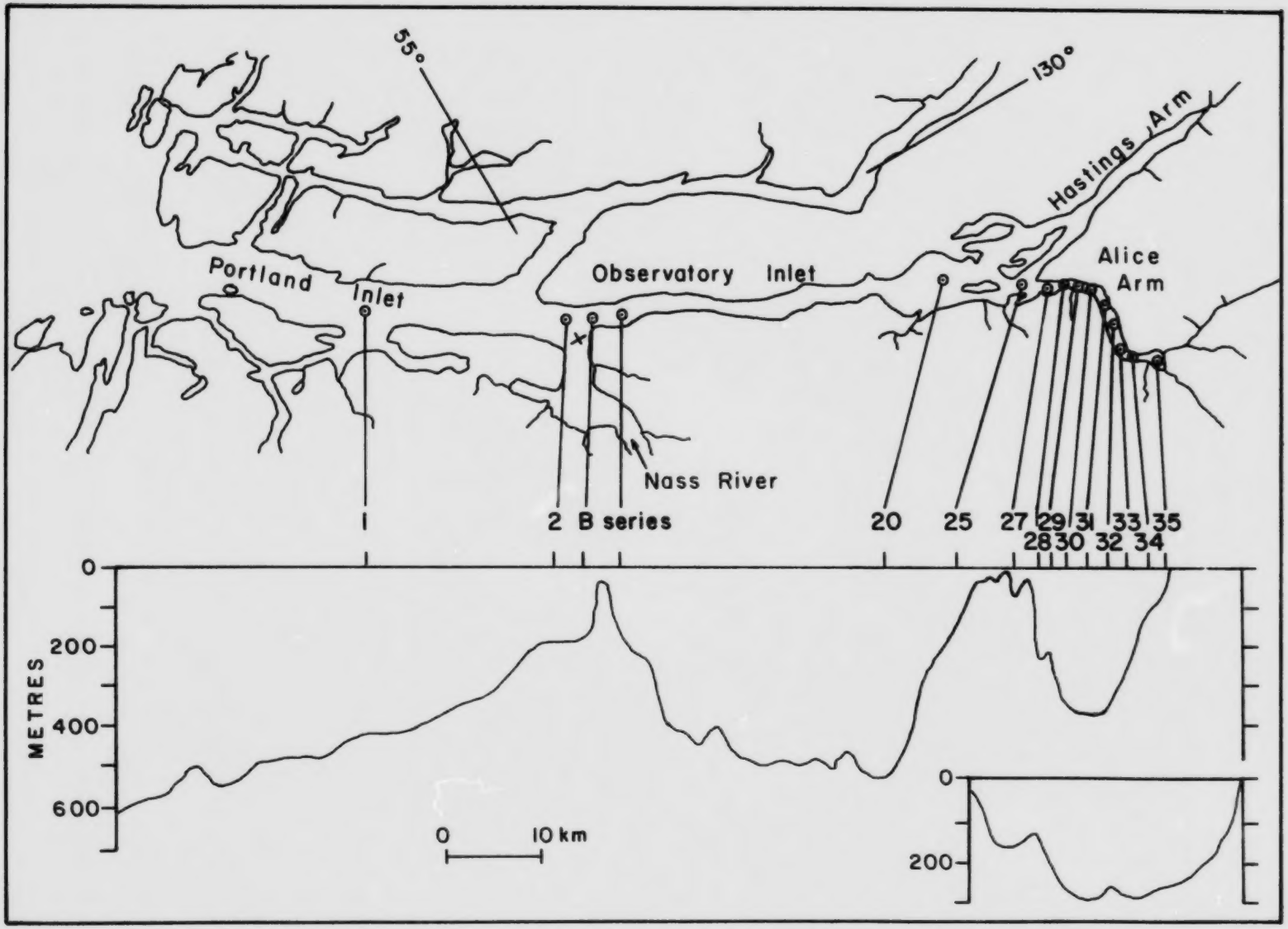
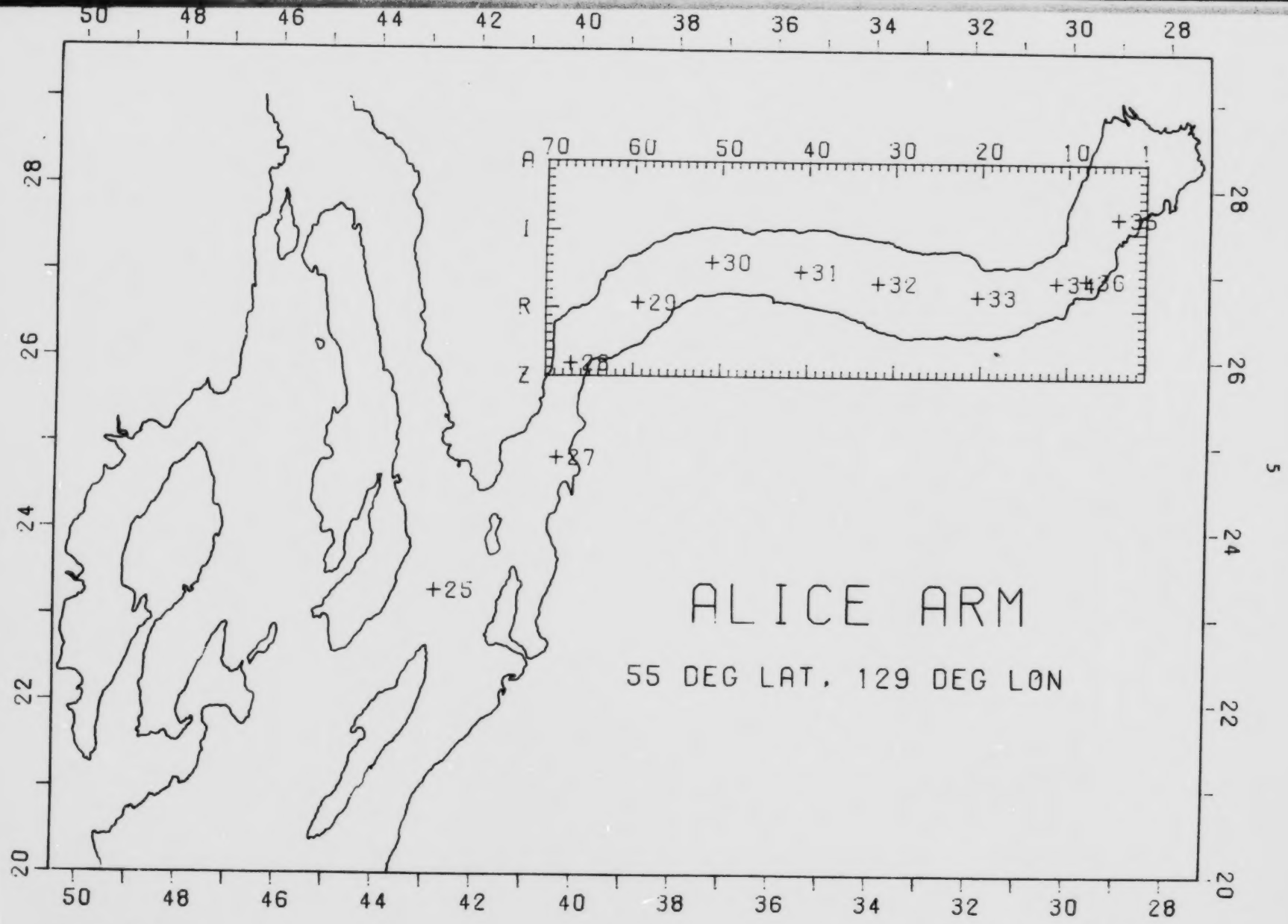

55°
130°
Hastings Arm
Portland Inlet
Observatory Inlet
Alice Arm
Nass River
1
2
B series
20
25
27
28
29
30
31
32
33
34
35
METRES
0
200
400
600
0
10 km
0
200

Figure 2


ALICE ARM
55 DEG LAT. 129 DEG LON
+25
+27
+29
+30
+31
+32
+33
+34
+36
50
48
46
44
42
40
38
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70
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A
I
R
Z

Figure 3

3. INDEX TO CALIBRATED DATA

THE CALIBRATED DATA WAS ORIGINALLY PRODUCED IN AN HP COMPATIBLE BLOCKED FORMAT, ON TAPE U00124 (LABEL: LFG*AA-CTD-CAL). IT WAS THEN CONVERTED, USING PROGRAM MEN.TRANSL, TO THE UNFORMATTED UNIVAC I/O TAPE U00989 (LABEL: LFG*NEW-CTD-CAL) TO MAKE IT COMPATIBLE WITH THE ALICE ARM CRASH PROGRAM DATA, AND EASIER TO USE ON THE UNIVAC.

INDEXES TO THE CASTS (FILES) ON THE TAPES, IN PASS AND STATION ORDER, FOLLOW.

ALICE ARM 1981 PRODAS CTD CASTS IN PASS ORDER PAGE 1

STA	REEL	FILE	DATE	TIME	PASS	LATITUDE	LONGITUDE	MXDEP	RECS
1	U0C989	1	810520	2135	1	54 49.00	130 15.00	433.9	1902
2	U0C989	2	810521	0005	3	54 59.60	130 2.35	194.0	893
B 2.5	U0C989	3	810521	0221	5	55 3.50	130 .20	116.9	1274
B 1.5	U0C989	4	810521	0412	7	55 2.30	130 .65	174.9	1809
B 1.5	U0C989	5	810521	0502	9	55 2.30	130 .65	173.0	1882
B 2.1	U0C989	6	810521	0525	11	55 3.14	130 .40	67.1	728
B 1.5	U0C989	7	810521	0547	12	55 2.30	130 .65	173.0	1777
B 2.25	U0C989	8	810521	0606	15	55 3.20	130 .30	82.5	876
B 2.25	U0C989	9	810521	0612	16	55 3.20	130 .30	70.0	764
B 2.25	U0C989	10	810521	0616	17	55 3.20	130 .30	58.1	706
B 2.0	U0C989	11	810521	0628	18	55 3.00	130 .50	34.9	412
B 2.0	U0C989	12	810521	0630	19	55 3.00	130 .50	32.4	357
B 2.0	U0C989	13	810521	0631	20	55 3.00	130 .50	41.2	512
B 1.8	U0C989	14	810521	0634	22	55 2.70	130 .60	79.4	889
B 1.8	U0C989	15	810521	0637	25	55 2.70	130 .60	107.9	1136
B 1.5	U0C989	16	810521	0642	27	55 2.30	130 .65	129.4	1359
B 2.0	U0C989	17	810521	0731	29	55 3.00	130 .50	44.4	567
B 2.0	U0C989	18	810521	0746	31	55 3.00	130 .50	77.1	923
B X	U0C989	19	810521	0752	33	55 3.00	130 .50	25.2	286
B 1.8	U0C989	20	810521	0809	35	55 2.70	130 .60	33.4	463
B 4.0	U0C989	21	810521	0912	37	55 4.10	129 59.50	215.9	2130
B 3.0	U0C989	22	810521	0932	39	55 3.60	130 .00	153.8	1673
B 2.5	U0C989	23	810521	0950	41	55 3.50	130 .20	108.6	1169
B 1.5	U0C989	24	810521	1009	43	55 2.30	130 .65	150.6	1546
20	U0C989	25	810521	1246	45	55 19.15	129 46.60	471.2	4658
25	U0C989	26	810521	1613	47	55 23.30	129 42.80	176.9	2434
27	U0C989	27	810521	1644	47	55 24.85	129 40.40	84.3	912
29	U0C989	28	810521	1713	50	55 26.66	129 38.80	318.9	3536
31	U0C989	29	810521	1741	52	55 27.03	129 35.50	363.7	3884
33	U0C989	30	810521	1809	54	55 26.75	129 31.90	253.3	2658
35	U0C989	31	810521	1843	56	55 27.67	129 29.07	97.5	1055
35	U0C989	32	810521	2131	59	55 27.67	129 29.07	80.5	1479
31	U0C989	33	810521	2215	61	55 27.03	129 35.50	223.7	3301
28	U0C989	34	810521	2257	63	55 25.95	129 40.15	246.9	3176
35	U0C989	35	810522	2355	65	55 27.67	129 29.07	78.1	906
31	U0C989	36	810522	0027	67	55 27.03	129 35.50	322.3	3793
28	U0C989	37	810522	0104	69	55 25.95	129 40.15	248.8	2898
35	U0C989	38	810522	0206	71	55 27.67	129 29.07	83.1	467
31	U0C989	39	810522	0243	73	55 27.03	129 35.50	325.5	1783
28	U0C989	40	810522	0318	75	55 25.95	129 40.15	247.9	1088
31	U0C989	41	810522	0355	77	55 27.03	129 35.50	377.0	1709
35	U0C989	42	810522	0433	79	55 27.67	129 29.07	93.4	372
31	U0C989	43	810522	0507	81	55 27.03	129 35.50	337.3	1641
28	U0C989	44	810522	0542	83	55 25.95	129 40.15	198.7	1204
27	U0C989	45	810522	0604	85	55 24.85	129 40.40	66.1	306
35	U0C989	46	810522	0702	87	55 27.67	129 29.07	80.8	357
31	U0C989	47	810522	0731	89	55 27.03	129 35.50	377.2	1668
28	U0C989	48	810522	0805	91	55 25.95	129 40.15	271.7	1200
27	U0C989	49	810522	0828	93	55 24.85	129 40.40	85.5	370
35	U0C989	50	810522	0945	95	55 27.67	129 29.07	74.4	326

ALICE ARM 1981 PRODAS CTD CASTS IN PASS ORDER PAGE 2

STA	REEL	FILE	DATE	TIME	PASS	LATITUDE	LONGITUDE	MXDEP	RECS
31	U00989	51	810522	1018	97	55 27.03	129 35.50	370.1	1526
28	U00989	52	810522	1052	99	55 25.95	129 40.15	268.5	1135
27	U00989	53	810522	1111	101	55 24.85	129 40.40	79.7	343
28	U00989	54	810522	1136	101	55 25.95	129 40.15	94.7	1710
27	U00989	55	810522	1217	105	55 24.85	129 40.40	66.8	722
28	U00989	56	810522	1245	107	55 25.95	129 40.15	248.6	2550
27	U00989	57	810522	1311	109	55 24.85	129 40.40	79.1	829
28	U00989	58	810522	1337	111	55 25.95	129 40.15	242.6	2530
27	U00989	59	810522	1402	113	55 24.85	129 40.40	83.0	865
28	U00989	60	810522	1425	115	55 25.95	129 40.15	246.3	2530
27	U00989	61	810522	1451	117	55 24.85	129 40.40	84.5	893
28	U00989	62	810522	1516	119	55 25.95	129 40.15	243.0	2511
27	U00989	63	810522	1606	121	55 24.85	129 40.40	79.1	852
28	U00989	64	810522	1627	123	55 25.95	129 40.15	247.2	2606
27	U00989	65	810522	1653	125	55 24.85	129 40.40	81.4	876
28	U00989	66	810522	1715	127	55 25.95	129 40.15	259.4	2702
27	U00989	67	810522	1749	128	55 24.85	129 40.40	78.6	819
28	U00989	68	810522	1818	131	55 25.95	129 40.15	266.6	2568
27	U00989	69	810522	1847	133	55 24.85	129 40.40	85.4	912
28	U00989	70	810522	1917	135	55 25.95	129 40.15	272.7	2803
27	U00989	71	810522	1945	137	55 24.85	129 40.40	81.3	859
28	U00989	72	810522	2023	139	55 25.95	129 40.15	274.8	2756
27	U00989	73	810522	2049	141	55 24.85	129 40.40	73.4	817
28	U00989	74	810522	2131	143	55 25.95	129 40.15	275.1	2856
27	U00989	75	810522	2202	145	55 24.85	129 40.40	79.7	825
28	U00989	76	810522	2239	147	55 25.95	129 40.15	279.2	2763
27	U00989	77	810523	2308	149	55 24.85	129 40.40	78.5	858
28	U00989	78	810523	2338	151	55 25.95	129 40.15	273.8	2754
27	U00989	79	810523	0012	153	55 24.85	129 40.40	81.4	862
28	U00989	80	810523	0034	155	55 25.95	129 40.15	246.1	2556
27	U00989	81	810523	0109	157	55 24.85	129 40.40	81.4	861
28	U00989	82	810523	0137	158	55 25.95	129 40.15	245.8	2580
27	U00989	83	810523	0205	161	55 24.85	129 40.40	77.4	817
28	U00989	84	810523	0231	163	55 25.95	129 40.15	249.3	2617
27	U00989	85	810523	0318	165	55 24.85	129 40.40	79.3	949
28	U00989	86	810523	0353	167	55 25.95	129 40.15	236.7	2584
29	U00989	87	810523	0411	169	55 26.66	129 38.80	322.9	3579
30	U00989	88	810523	0430	171	55 27.13	129 37.30	372.8	3847
31	U00989	89	810523	0452	172	55 27.03	129 35.50	300.3	3281
32	U00989	90	810523	0516	173	55 26.90	129 33.92	269.2	2955
33	U00989	91	810523	0536	177	55 26.75	129 31.90	262.3	2730
34	U00989	92	810523	0558	179	55 26.92	129 30.30	166.7	1785
35	U00989	93	810523	0617	181	55 27.67	129 29.07	90.0	938
33	U00989	94	810523	0712	183	55 26.75	129 31.90	216.1	2334

ALICE ARM 1981 PRODAS CTD CASTS IN STATION ORDER PAGE 1

STA	REEL	FILE	DATE	TIME	PASS	LATITUDE	LONGITUDE	MXDEP	RECS
1	U00989	1	810520	2135	1	54 49.00	130 15.00	433.9	1902
2	U00989	2	810521	0005	3	54 59.60	130 2.35	194.0	893
20	U00989	25	810521	1246	45	55 19.15	129 46.60	471.2	4658
25	U00989	26	810521	1613	47	55 23.30	129 42.80	176.9	2434
27	U00989	27	810521	1644	47	55 24.85	129 40.40	84.3	912
27	U00989	45	810522	0604	85	55 24.85	129 40.40	66.1	306
27	U00989	49	810522	0828	93	55 24.85	129 40.40	85.5	370
27	U00989	53	810522	1111	101	55 24.85	129 40.40	79.7	343
27	U00989	55	810522	1217	105	55 24.85	129 40.40	66.8	722
27	U00989	57	810522	1311	109	55 24.85	129 40.40	79.1	829
27	U00989	59	810522	1402	113	55 24.85	129 40.40	83.0	865
27	U00989	61	810522	1451	117	55 24.85	129 40.40	84.5	893
27	U00989	63	810522	1606	121	55 24.85	129 40.40	79.1	852
27	U00989	65	810522	1653	125	55 24.85	129 40.40	81.4	876
27	U00989	67	810522	1749	128	55 24.85	129 40.40	78.6	819
27	U00989	69	810522	1847	133	55 24.85	129 40.40	85.4	912
27	U00989	71	810522	1945	137	55 24.85	129 40.40	81.3	859
27	U00989	73	810522	2049	141	55 24.85	129 40.40	73.4	817
27	U00989	75	810522	2202	145	55 24.85	129 40.40	79.7	825
27	U00989	77	810523	2308	149	55 24.85	129 40.40	78.5	858
27	U00989	79	810523	0012	153	55 24.85	129 40.40	81.4	862
27	U00989	81	810523	0109	157	55 24.85	129 40.40	81.4	861
27	U00989	83	810523	0205	161	55 24.85	129 40.40	77.4	817
27	U00989	85	810523	0318	165	55 24.85	129 40.40	79.3	949
28	U00989	34	810521	2257	63	55 25.95	129 40.15	246.9	3176
28	U00989	37	810522	0104	69	55 25.95	129 40.15	248.8	2898
28	U00989	40	810522	0318	75	55 25.95	129 40.15	247.9	1088
28	U00989	44	810522	0542	83	55 25.95	129 40.15	198.7	1204
28	U00989	48	810522	0805	91	55 25.95	129 40.15	271.7	1200
28	U00989	52	810522	1052	99	55 25.95	129 40.15	268.5	1135
28	U00989	54	810522	1136	101	55 25.95	129 40.15	94.7	1710
28	U00989	56	810522	1245	107	55 25.95	129 40.15	248.6	2550
28	U00989	58	810522	1337	111	55 25.95	129 40.15	242.6	2530
28	U00989	60	810522	1425	115	55 25.95	129 40.15	246.3	2530
28	U00989	62	810522	1516	119	55 25.95	129 40.15	243.0	2511
28	U00989	64	810522	1627	123	55 25.95	129 40.15	247.2	2606
28	U00989	66	810522	1715	127	55 25.95	129 40.15	259.4	2702
28	U00989	68	810522	1818	131	55 25.95	129 40.15	266.6	2568
28	U00989	70	810522	1917	135	55 25.95	129 40.15	272.7	2803
28	U00989	72	810522	2023	139	55 25.95	129 40.15	274.8	2756
28	U00989	74	810522	2131	143	55 25.95	129 40.15	275.1	2856
28	U00989	76	810522	2239	147	55 25.95	129 40.15	279.2	2763
28	U00989	78	810523	2338	151	55 25.95	129 40.15	273.8	2754
28	U00989	80	810523	0034	155	55 25.95	129 40.15	246.1	2556
28	U00989	82	810523	0137	158	55 25.95	129 40.15	245.8	2580
28	U00989	84	810523	0231	163	55 25.95	129 40.15	249.3	2617
28	U00989	86	810523	0353	167	55 25.95	129 40.15	236.7	2584
29	U00989	28	810521	1713	50	55 26.66	129 38.80	318.9	3536
29	U00989	87	810523	0411	169	55 26.66	129 38.80	322.9	3579
30	U00989	88	810523	0430	171	55 27.13	129 37.30	372.8	3847

ALICE ARM 1981 PRODAS CTD CASTS IN STATION ORDER PAGE 2

STA	REEL	FILE	DATE	TIME	PASS	LATITUDE	LONGITUDE	MXDEP	RECS
31	U00989	29	810521	1741	52	55 27.03	129 35.50	363.7	3884
31	U00989	33	810521	2215	61	55 27.03	129 35.50	223.7	3301
31	U00989	36	810522	0027	67	55 27.03	129 35.50	322.3	3793
31	U00989	39	810522	0243	73	55 27.03	129 35.50	325.5	1783
31	U00989	41	810522	0355	77	55 27.03	129 35.50	377.0	1709
31	U00989	43	810522	0507	81	55 27.03	129 35.50	337.3	1641
31	U00989	47	810522	0731	89	55 27.03	129 35.50	377.2	1668
31	U00989	51	810522	1018	97	55 27.03	129 35.50	370.1	1526
31	U00989	89	810523	0452	172	55 27.03	129 35.50	300.3	3281
32	U00989	90	810523	0516	173	55 26.90	129 33.92	269.2	2955
33	U00989	30	810521	1809	54	55 26.75	129 31.90	253.3	2658
33	U00989	91	810523	0536	177	55 26.75	129 31.90	262.3	2730
33	U00989	94	810523	0712	183	55 26.75	129 31.90	216.1	2334
34	U00989	92	810523	0558	179	55 26.92	129 30.30	166.7	1785
35	U00989	31	810521	1843	56	55 27.67	129 29.07	97.5	1055
35	U00989	32	810521	2131	59	55 27.67	129 29.07	80.5	1479
35	U00989	35	810522	2355	65	55 27.67	129 29.07	78.1	906
35	U00989	38	810522	0206	71	55 27.67	129 29.07	83.1	467
35	U00989	42	810522	0433	79	55 27.67	129 29.07	93.4	372
35	U00989	46	810522	0702	87	55 27.67	129 29.07	80.8	357
35	U00989	50	810522	0945	95	55 27.67	129 29.07	74.4	326
35	U00989	93	810523	0617	181	55 27.67	129 29.07	90.0	938
B 1.5	U00989	4	810521	0412	7	55 2.30	130 .65	174.9	1809
B 1.5	U00989	5	810521	0502	9	55 2.30	130 .65	173.0	1882
B 1.5	U00989	7	810521	0547	12	55 2.30	130 .65	173.0	1777
B 1.5	U00989	16	810521	0642	27	55 2.30	130 .65	129.4	1359
B 1.5	U00989	24	810521	1009	43	55 2.30	130 .65	150.6	1546
B 1.8	U00989	14	810521	0634	22	55 2.70	130 .60	79.4	889
B 1.8	U00989	15	810521	0637	25	55 2.70	130 .60	107.9	1136
B 1.8	U00989	20	810521	0809	35	55 2.70	130 .60	33.4	463
B 2.0	U00989	11	810521	0628	18	55 3.00	130 .50	34.9	412
B 2.0	U00989	12	810521	0630	19	55 3.00	130 .50	32.4	357
B 2.0	U00989	13	810521	0631	20	55 3.00	130 .50	41.2	512
B 2.0	U00989	17	810521	0731	29	55 3.00	130 .50	44.4	567
B 2.0	U00989	18	810521	0746	31	55 3.00	130 .50	77.1	923
B 2.1	U00989	6	810521	0525	11	55 3.14	130 .40	67.1	728
B 2.25	U00989	8	810521	0606	15	55 3.20	130 .30	82.5	876
B 2.25	U00989	9	810521	0612	16	55 3.20	130 .30	70.0	764
B 2.25	U00989	10	810521	0616	17	55 3.20	130 .30	58.1	706
B 2.5	U00989	3	810521	0221	5	55 3.50	130 .20	116.9	1274
B 2.5	U00989	23	810521	0950	41	55 3.50	130 .20	108.6	1169
B 3.0	U00989	22	810521	0932	39	55 3.60	130 .00	153.8	1673
B 4.0	U00989	21	810521	0912	37	55 4.10	129 59.50	215.9	2130
B X	U00989	19	810521	0752	33	55 3.00	130 .50	25.2	286

4. PLOT PROGRAMS

4.1 LFG*MEN.NEWPROF	PROFILES
4.2 LFG*MEN.CONTOUR	CONTOURS
4.3 LFG*MEN.DISP	DISPLACEMENTS

4.1 MEN.NEWPROF PROFILE PLOTTING

PROFILES CAN BE PLOTTED ON A LINEAR DEPTH SCALE WITHIN SPECIFIED DEPTH BOUNDS, OR ON A LOG10 LEPTH SCALE FROM 1 TO 1000 METRES.

INPUT PARAMETERS

CARD	NAME	TYPE	DESCRIPTION
1.	RL	I	- RECORD LENGTH (NUMBER OF DATA CHANNELS) - NORMALLY 6, BUT MAY = XCHAN
	ITFL	I	- TIME FLAG, =1 IF THE CAST TIME IS TO BE PLOTTED AT THE END OF EACH PROFILE. - = 2 TO GET THE PASS # AT END OF PROFILE - (OTHERWISE 0)
2.	YTTL	C	- TITLE, UP TO 60 CHARACTERS, IN QUOTES.
	SCAL	C	- SECOND TITLE, UP TO 20 CHARS. IN QUOTES.
3.	YCHAN	I	- CHANNEL NUMBER OF Y AXIS (1 FOR DEPTH)
	YAX	R	- Y (DEPTH) AXIS LENGTH, IN INCHES
	PMAX	R	- MAXIMUM DEPTH
	PMIN	R	- MINIMUM DEPTH (GE 1 FOR LOG SCALE)
4.	XCHAN	I	- DATA CHANNEL TO BE PROFILED: 2 PRESSURE 3 SALINITY 4 TEMPERATURE 5 SIGMA T 6 CONDUCTIVITY (7 TRANSMISS.)
	XSCALE	R	- UNITS OF DATA PER INCH
	XREF	R	- DATA VALUE USED AS PLOTTING REFERENCE. THIS POINT IS MARKED ON AND BELOW EACH PROFILE WITH A '+'.
	XMIN	R	- DATA VALUES LESS THAN XMIN ARE NOT PLOTTED
	XSTART	R	- DISTANCE IN INCHES FROM THE DEPTH AXIS TO THE XREF POINT ON THE FIRST PROFILE
	OFFSET	R	- SEPARATION, IN INCHES, OF XREF POINTS OF THE PROFILES.
5.	NF	I	- NUMBER OF FILES TO BE PLOTTED
	FILES	I	- UP TO 50 FILE NUMBERS
6.	LOGLIN	C	- EITHER LOG OR LIN IN POSITIONS 1-3, TO SPECIFY DEPTH SCALE TYPE
7.	NGP	I	- NUMBER OF 'GUIDE POINTS' TO BE PLOTTED (MAXIMUM 10)
	XGP,YGP	R	- COORDINATE PAIRS (IN INCHES FROM THE BASE OF THE DEPTH AXIS) OF THE GUIDE POINTS TO BE PLOTTED. (A GUIDE POINT IS A .3 IN. '+' PLOTTED TO HELP LINE UP PAPER CUTTER ETC.)

MEN.NEWPROF MAPPING RUNSTREAM

```
LFG*MRUN.P-NEWPROF


@MAP,IE ,MEN.NEWPROF.
IN MEN.NEWPROF
IN MEN.DAXIS
IN MEN.SKIP
LIB UBC*LIB
LIB PLOT*LIB
END
```

MEN.NEWPROF EXECUTION RUNSTREAM

```
LFG*MRUN.X-NEWPROF


@ASG,TV LFG*NEW-CTD-CAL.,T,U00989
@USE 9.,LFG*NEW-CTD-CAL.
@XQT MEN.NEWPROF
6 1
'TEST PLOT - PROFILE FILES 1, 2, 10, 11, 12'
'SALINITY'
1 5. 500. 1.
3 8. 25. 0. .85 .75
5  1 2 10 11 12
LIN
4 -1.3 -.7   -1.3 5.8  7.7,5.8   7.7 -.7
```

4.2 MEN.CONTOUR VERTICAL CONTOUR PLOTTING

PROGRAM CONTOUR PRODUCES DEPTH CONTOURS OF A SPECIFIED CHANNEL OF C.T.D. DATA. FOR SUCCESSIVE CTD CASTS, THE DEPTHS AT WHICH A DATA VALUE OCCURS ARE JOINED BY STRAIGHT LINES. IF THE DATA FOR A CONTOUR VALUE IS NOT AVAILABLE IN A PARTICULAR CAST THE CONTOUR SEGMENT BEFORE AND AFTER THAT CAST IS OMITTED.

CONTOUR WILL ALSE PRODUCE A PLOT OF THE TIDE, ABOVE THE CONTOUR PLOT, WITH THE SAME TIME SCALE, IF PARAMETER TIDLEN IS GREATER THAN ZERO. (PARAMETER CARD 10)

INPUT PARAMETERS

CARD	NAME	TYPE	DESCRIPTION
1.	TITLE	C	- CONTOUR PLOT TITLE, IN COLS 1-60 (NO QUOTES)
2.	NFILES	I	- NUMBER OF FILES TO BE READ (MAX 100)
3.	IFILE	I	- UP TO 100 INTEGERS - THE FILE NUMBERS OF THE FILES TO BE PLOTTED
4.	RL	I	- NUMBER OF DATA CHANNELS TO BE READ
5.	IP	I	- CHANNEL NUMBER TO BE PLOTTED 3 SALINITY 4 TEMPERATURE 5 SIGMA T 6 CONDUCTIVITY (7 TRANSMISS.)
6.	XLOW	R	- MINIMUM CONTOUR VALUE
	XHIGH	R	- MAXIMUM CONTOUR VALUE
	XINT	R	- INTERVAL BETWEEN CONTOUR VALUES
7.	DEPMIN	R	- MINIMUM DEPTH (METRES)
	DEPMAX	R	- MAXIMUM DEPTH (METRES)
	DALEN	R	- LENGTH OF DEPTH AXIS (INCHES)
8.	DAT1(3)	I	- 3 INTEGERS: DA MO YR
	TIM1	I	- ONE INTEGER HHMM DAT1 & TIM1 FORM THE DATE AND TIME OF THE STARTING POINT OF THE TIME (x) AXIS. MUST BE PRIOR TO OR EQUAL TO THE DATE AND TIME OF THE FIRST FILE.
	DATL(3)	I	- 3 INTEGERS: DA MO YR
	TIML	I	- ONE INTEGER HHMM DATL & TIML FORM THE DATE AND TIME OF THE END POINT OF THE TIME AXIS. MUST BE GREATER THAN OR EQUAL TO THE TIME OF THE LAST FILE.

9.	TALEN	R	- LENGTH OF THE TIME AXIS (INCHES) (IF TALEN > 0., TIMSCL WILL BE CALCULATED)
	TIMSCL	R	- MINUTES PER INCH OF THE TIME AXIS (IF TIMSCL > 0., TALEN WILL BE CALCULATED) NOTE: ONLY ONE OF TALEN AND TIMSCL MAY BE NON-ZERO. YOU HAVE THE CHOICE OF SPECIFYING THE SCALE OR THE LENGTH.
10.	TIDLEN	R	- LENGTH OF THE TIDE HEIGHT AXIS (INCHES) - IF TIDLEN = 0., NO TIDE PLOT WILL BE PRODUCED.
11.	NGP	I	- NUMBER OF 'GUIDE POINTS' TO BE PLOTTED (MAXIMUM 10)
	XGP,YGP	R	- COORDINATE PAIRS (IN INCHES FROM THE BASE OF THE DEPTH AXIS) OF THE GUIDE POINTS TO BE PLOTTED. (A GUIDE POINT IS A .3 IN. '+' PLOTTED TO HELP LINE UP PAPER CUTTER ETC.)

MEN.CONTOUR MAPPING RUNSTREAM

```
LFG*MRUN.M-CONTOUR


@MAP,IE ,MEN.CONTOUR
IN MEN.CONTOUR
IN MEN.PLOTID
IN MEN.DAXIS
IN MEN.TAXIS
IN MEN.MINDIF
IN MEN.SKIP
LIB UBC*LIB
LIB PLOT*LIB
END
```

MEN.CONTOUR EXECUTION RUNSTREAM

```
LFG*MRUN.X-CONTOUR


@ASG,TV LFG*NEW-CTD-CAL.,T,U0C989
@USE 2.,LFG*NEW-CTD-CAL.
@REWIND 2.
@ASG,A TIDE5-9.
@USE 9.,TIDE5-9.
@ASG,A MEN.
@XQT MEN.CONTOUR
TEST - LFG*NEW-CTD-CAL FILES 5 TO 16
12
5 6 7 8 9 10 11 12 13 14 15 16
6
5
6. 25. 1.
1. 100. 3.5
21 5 81 0005  21 5 81 0525
8. 0.
1.5
4 -1.3 -.7   -1.3 5.8  7.7,5.8   7.7 -.7
```

4.3 MEN.DISP DISPLACEMENT PLOTTING

THE DISPLACEMENT PROGRAM READS THROUGH EACH FILE OF CTD DATA INTERPOLATING TO PRODUCE DENSITIES AT SPECIFIED DEPTH INTERVALS. THE RESULTING ARRAY OF DENSITIES IS THEN SORTED INTO ASCENDING ORDER-THEREBY PUTTING EACH DENSITY IN ITS STABLE POSITION. THE PLOTTED DISPLACEMENT AT EACH DEPTH IS THAT DEPTH (DP1) MINUS THE DEPTH AT WHICH THE DENSITY WHICH OCCURRED AT DP1 WOULD BE IF THE COLUMN WERE STABLE.

THUS A NEGATIVE DISPLACEMENT INDICATES THE WATER IS ABOVE ITS STABLE POSITION, AND A POSITIVE DISPLACEMENT INDICATES THE WATER IS BELOW ITS STABLE POSITION.

THE DISPLACEMENTS CAN BE PLOTTED AS HORIZONTAL LINES FROM THE VERTICAL ZERO DISPLACEMENT LINE (A BAR GRAPH) OR AS A CONTINUOUS GRAPH.

DISPLACEMENT INPUT PARAMETERS

CARD	NAME	TYPE	DESCRIPTION
1.	TITLE	C	- PLOT TITLE, IN COLS 1-60 (NO QUOTES)
2.	DEMIN	R	- MINIMUM DEPTH
	DEPMAX	R	- MAXIMUM DEPTH
	DEPINT	R	- DEPTH INTERVAL AT WHICH DISPLACEMENTS ARE TO BE CALCULATED.
	LEN	R	- LENGTH (IN INCHES) OF THE DEPTH AXIS
3.	XSC	R	- DISPLACEMENT SCALE (METRES/INCH)
	OFFSET	R	- DISTANCE (IN INCHES) BETWEEN DISPLACEMENT PLOTS.
4.	NFILE	I	- NUMBER OF FILES TO BE PLOTTED (MAX 50)
	NF(50)	I	- UP TO 50 FILE NUMBERS
5.	PLOTYP	C	- 3 CHARACTERS IN COLS 1-3 INDICATING PLOT TYPE: BAR - TO PRODUCE BAR GRAPHS CON - TO PRODUCE CONTINUOUS PLOTS
	PRFLAG	C	- 5 CHARACTERS IN COLUMNS 5-9: PRINT - TO CAUSE A LISTING OF THE INTERPOLATED AND SORTED DATA. NOPRT - TO PREVENT THE LISTING.
6.	NGP	I	- NUMBER OF 'GUIDE POINTS' TO BE PLOTTED (MAXIMUM 10)
	XGP,YGP	R	- COORDINATE PAIRS (IN INCHES FROM THE BASE OF THE DEPTH AXIS) OF THE GUIDE POINTS TO BE PLOTTED. (A GUIDE POINT IS A .3 IN. '+' PLOTTED TO HELP LINE UP PAPER CUTTER ETC.)

MEN.DISP MAPPING RUNSTREAM

```
LFG*MRUN.M-DISP


@MAP,IE ,MEN.DISP
IN MEN.DISP
IN MEN.DISPLOT
IN MEN.DAXIS
LIB UBC*LIB
LIB PLOT*LIB
END
@PACK MEN.
```

MEN.DISP EXECUTION RUNSTREAM

```
LFG*MRUN.X-DISP


@ASG,TV LFG*NEW-CTD-CAL.,T,UC0989
@USE 2.,LFG*NEW-CTD-CAL.
@ASG,A MEN.
@XQT MEN.DISP
TEST FIRST 5 FILES
0. 120. .5 5.
6. .8
5  1 2 3 4 5
CON NOPRT
  4 -1.9 -1.7  -1.9 6.8  9.1 6.8   9.1 -1.7
```

5. DATA PLOTS

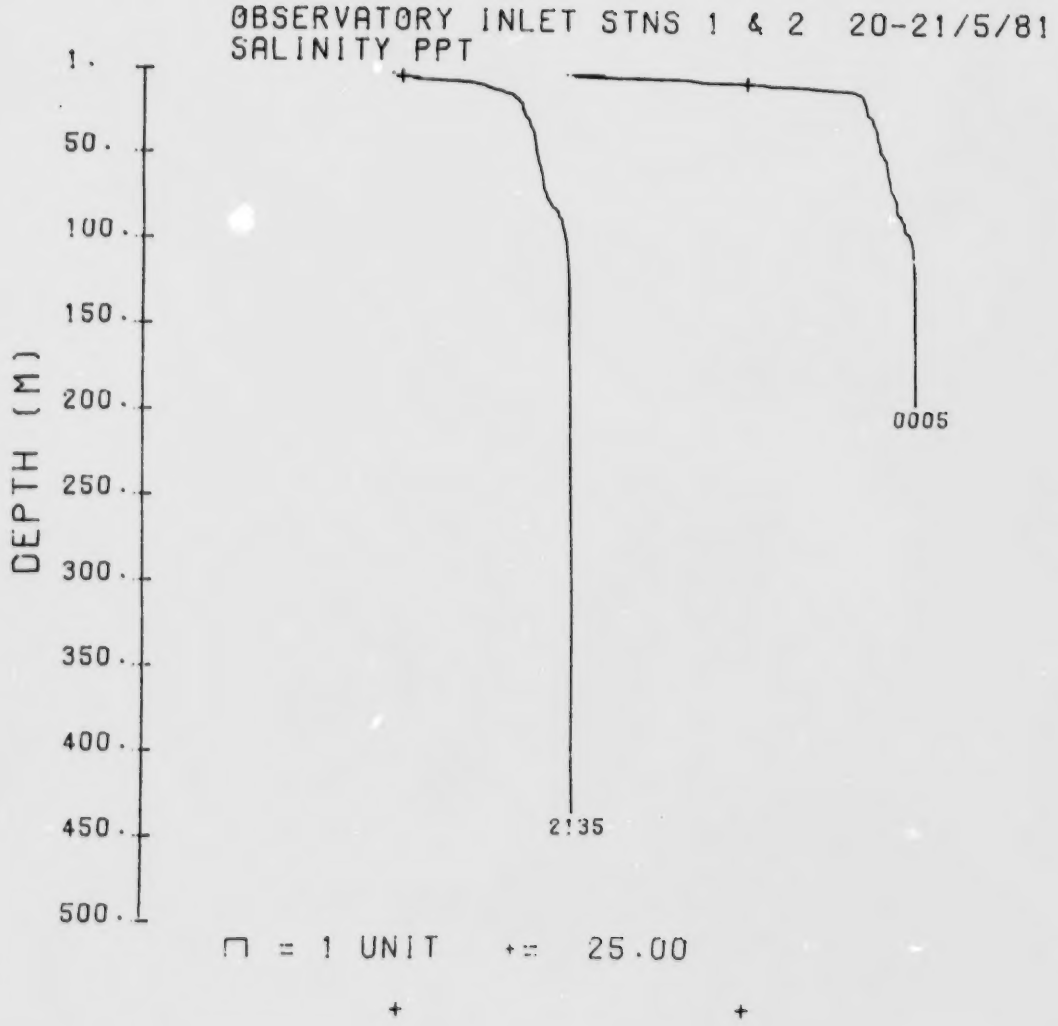
FOR EACH SET OF CASTS, THE FOLLOWING PLOTS ARE INCLUDED:

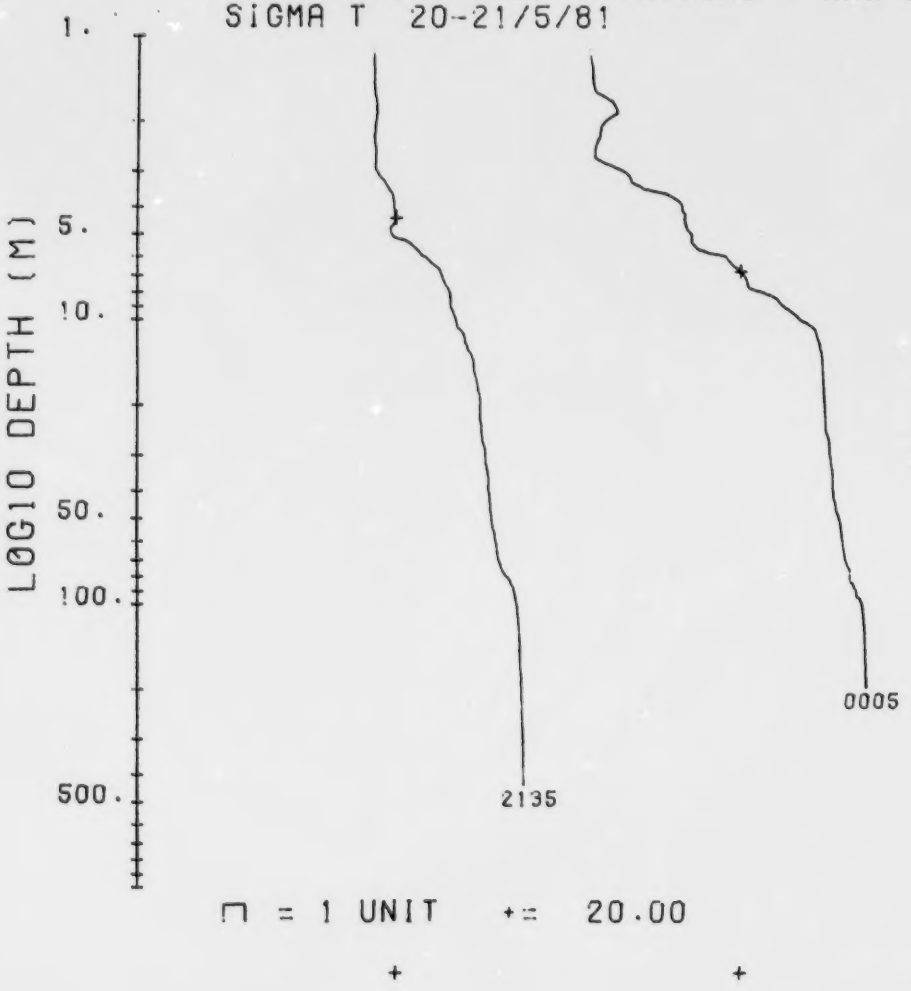
PROFILES	-	SALINITY	LINEAR DEPTH AXIS
		SALINITY	LOG 10 DEPTH AXIS
	-	SIGMA-T	LINEAR DEPTH AXIS
		SIGMA-T	LOG 10 DEPTH AXIS
	-	TEMPERATURE	LINEAR DEPTH AXIS
		TEMPERATURE	LOG 10 DEPTH AXIS
CONTOUR	-	SIGMA-T	DEPTH VS TIME

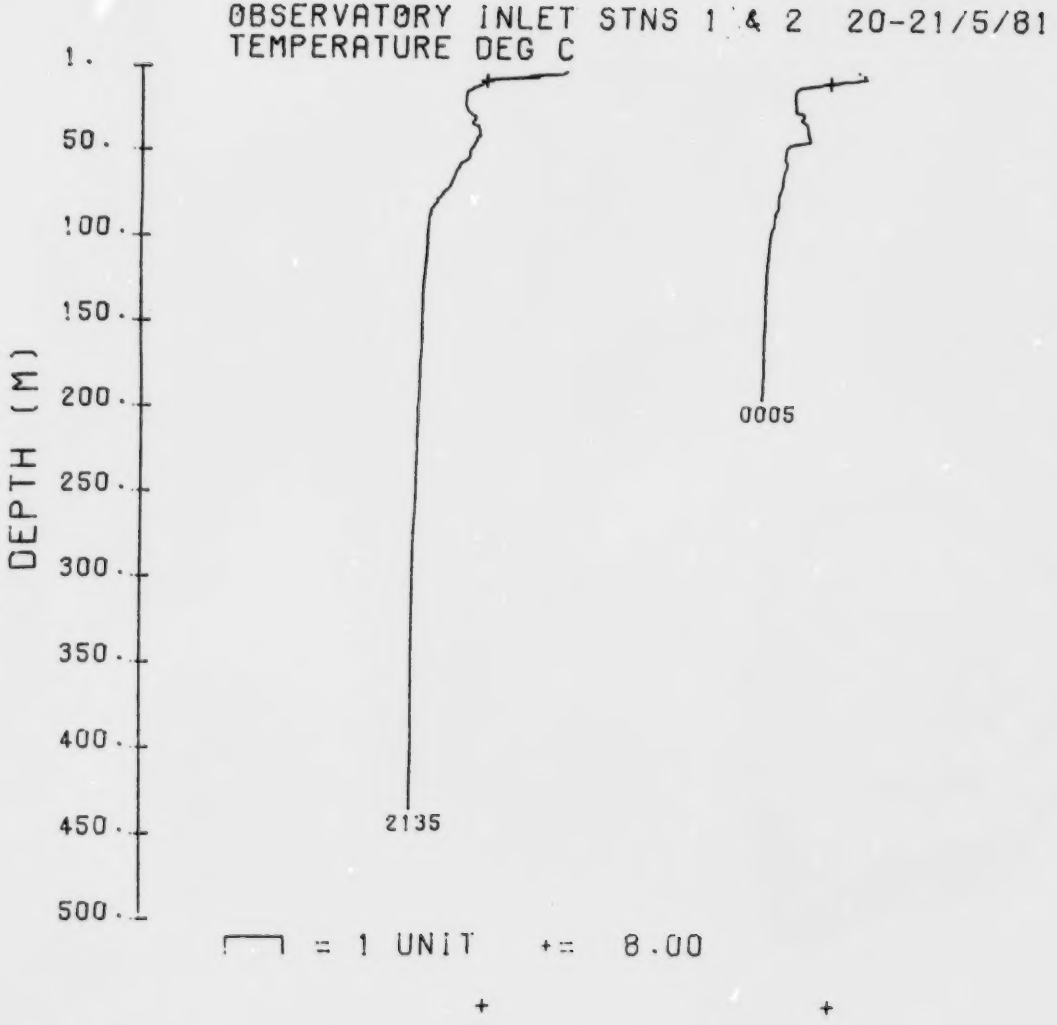
DISPLACEMENTS

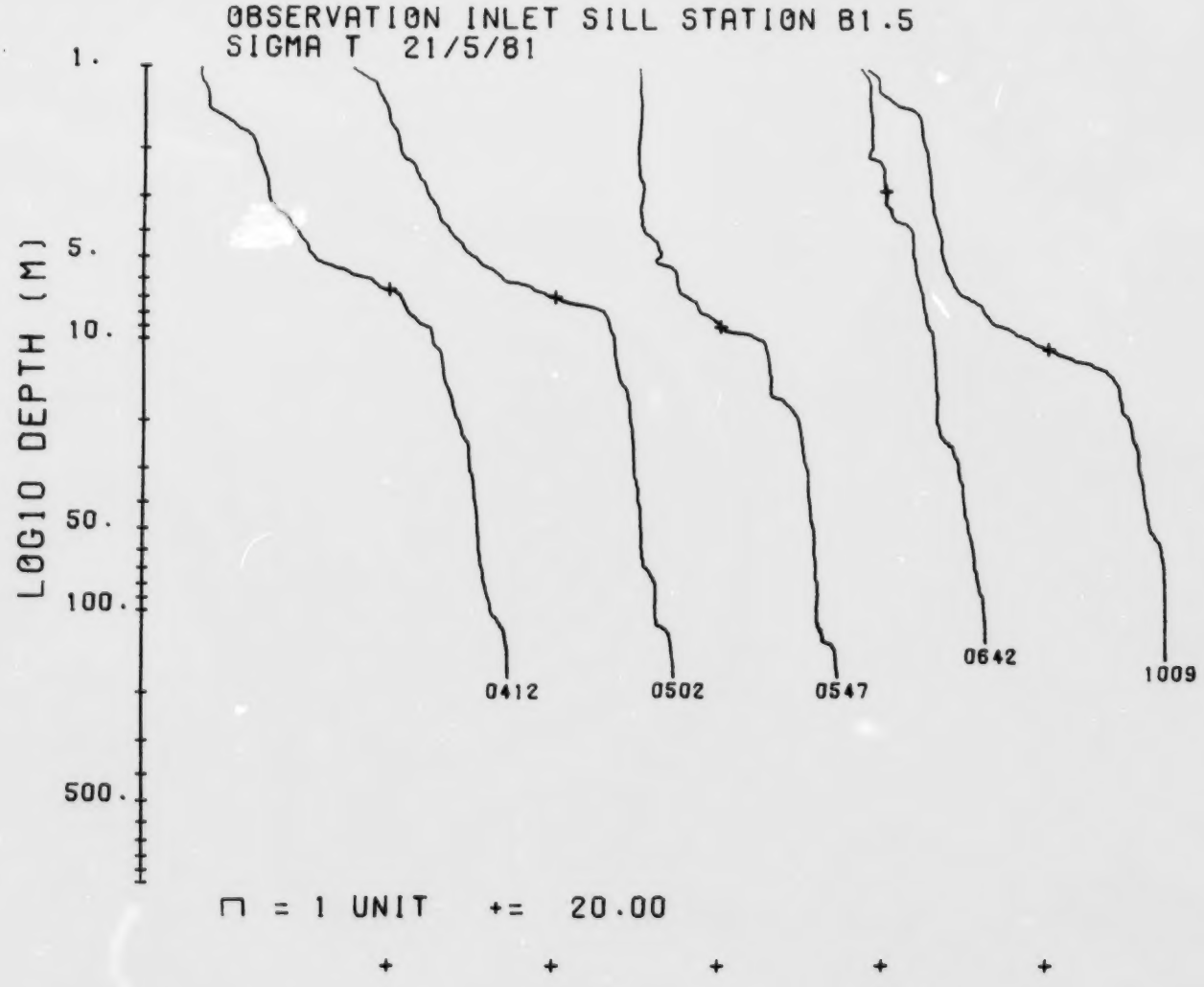
SET A: OBSERVATORY INLET SILL	20-21/5/81
SET B: ALICE ARM - ALONG CHANNEL	21/5/81
SET C: ALICE ARM - ALONG CHANNEL	23/5/81
SET D: STATION 27	21-23/5/81
SET E: STATION 28	21-23/5/81
SET F: STATION 33	21,23/5/81
SET G: STATION 35	21/5/81

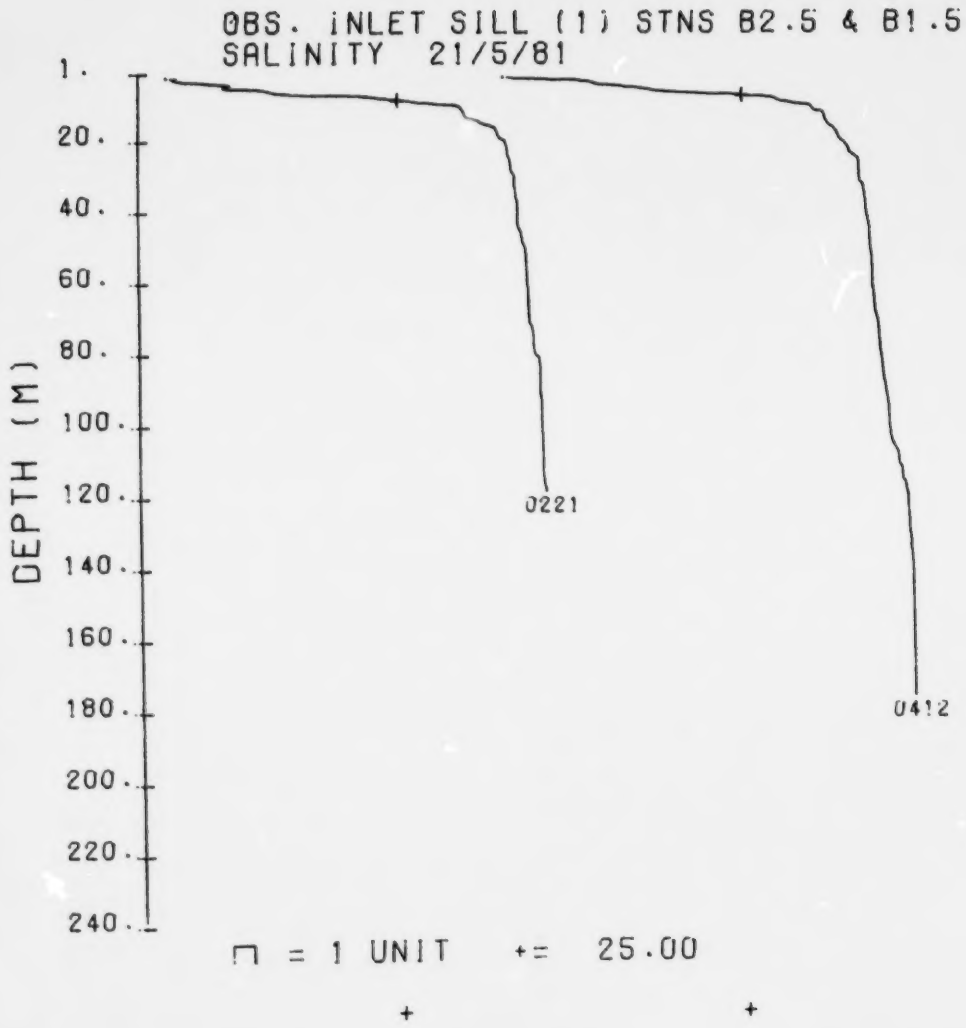
SET A: OBSERVATORY INLET SILL 20-21/5/81

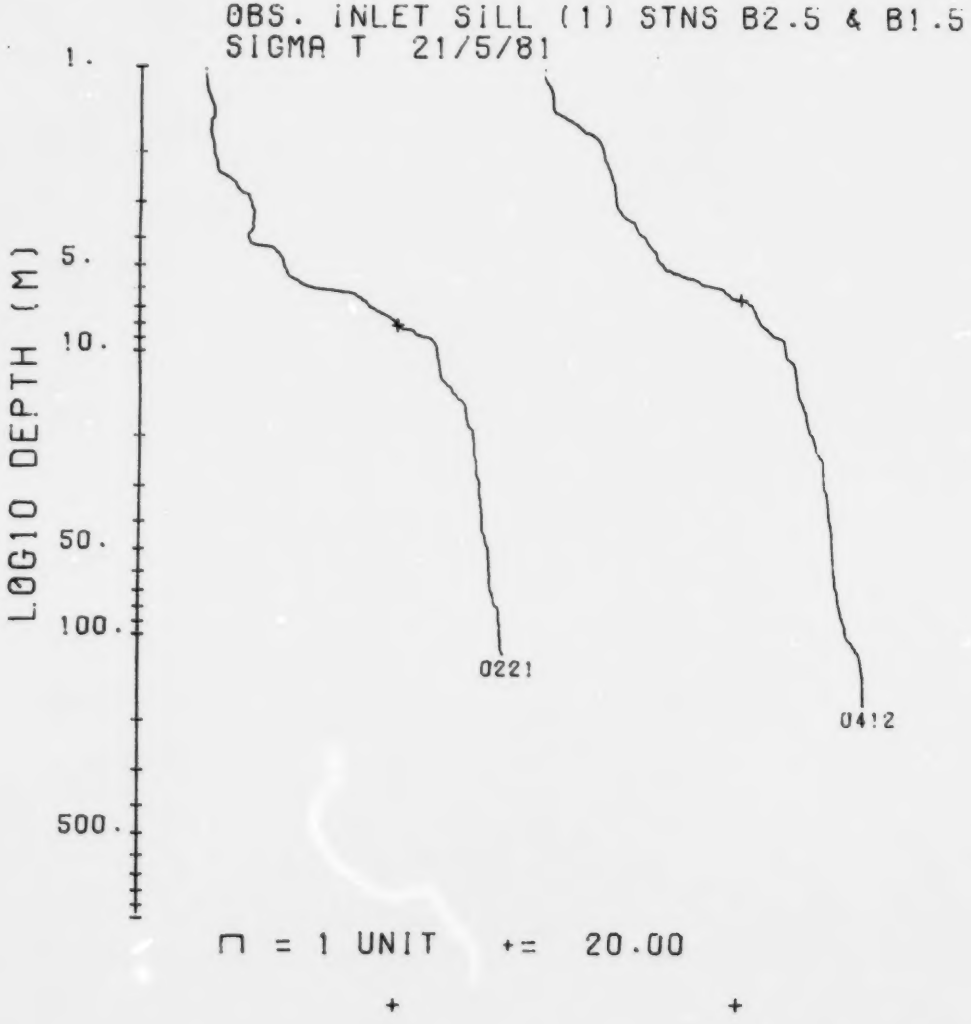

OBSERVATORY INLET STNS 1 & 2 20-21/5/81
SALINITY PPT
DEPTH (M)
1.
50.
100.
150.
200.
250.
300.
350.
400.
450.
500.
0005
2135
□ = 1 UNIT + = 25.00

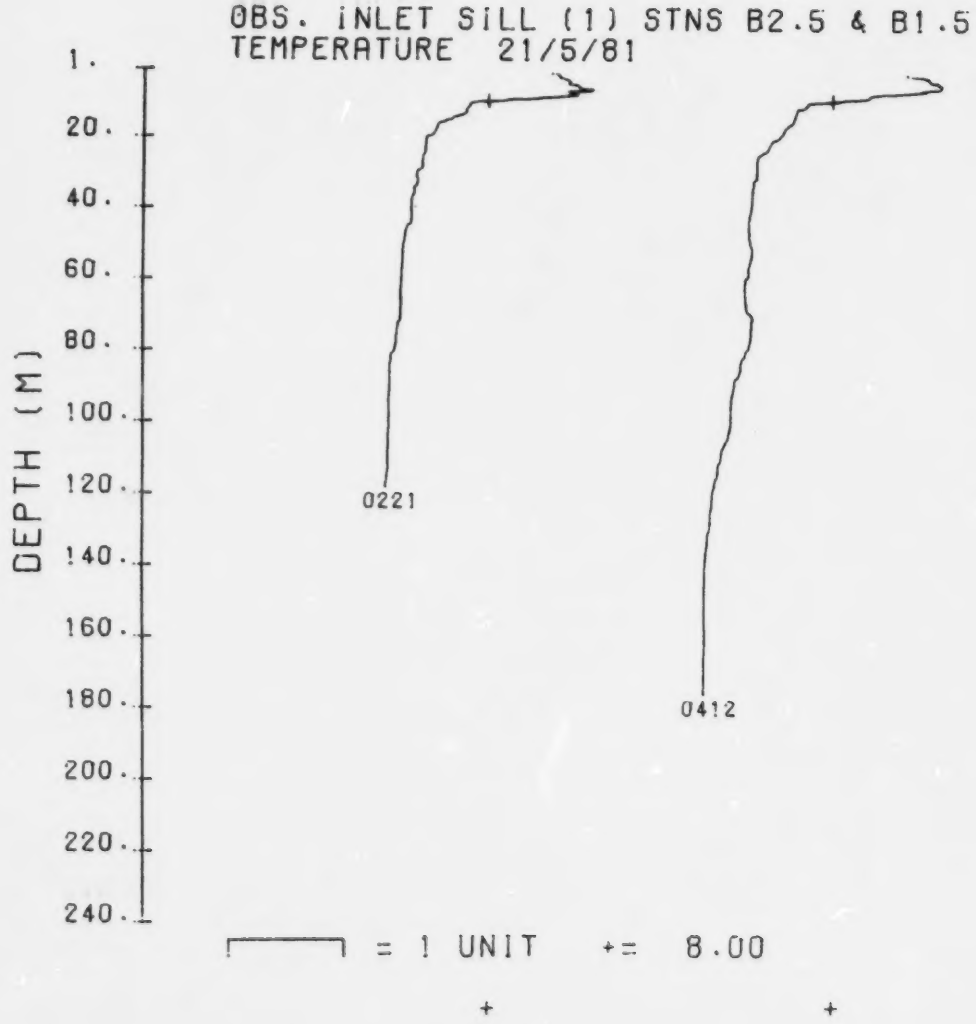

OBSERVATORY INLET STATIONS 1 AND 2
SIGMA T 20-21/5/81
LOG10 DEPTH (M)
1.
5.
10.
50.
100.
500.
0005
2135
□ = 1 UNIT + = 20.00

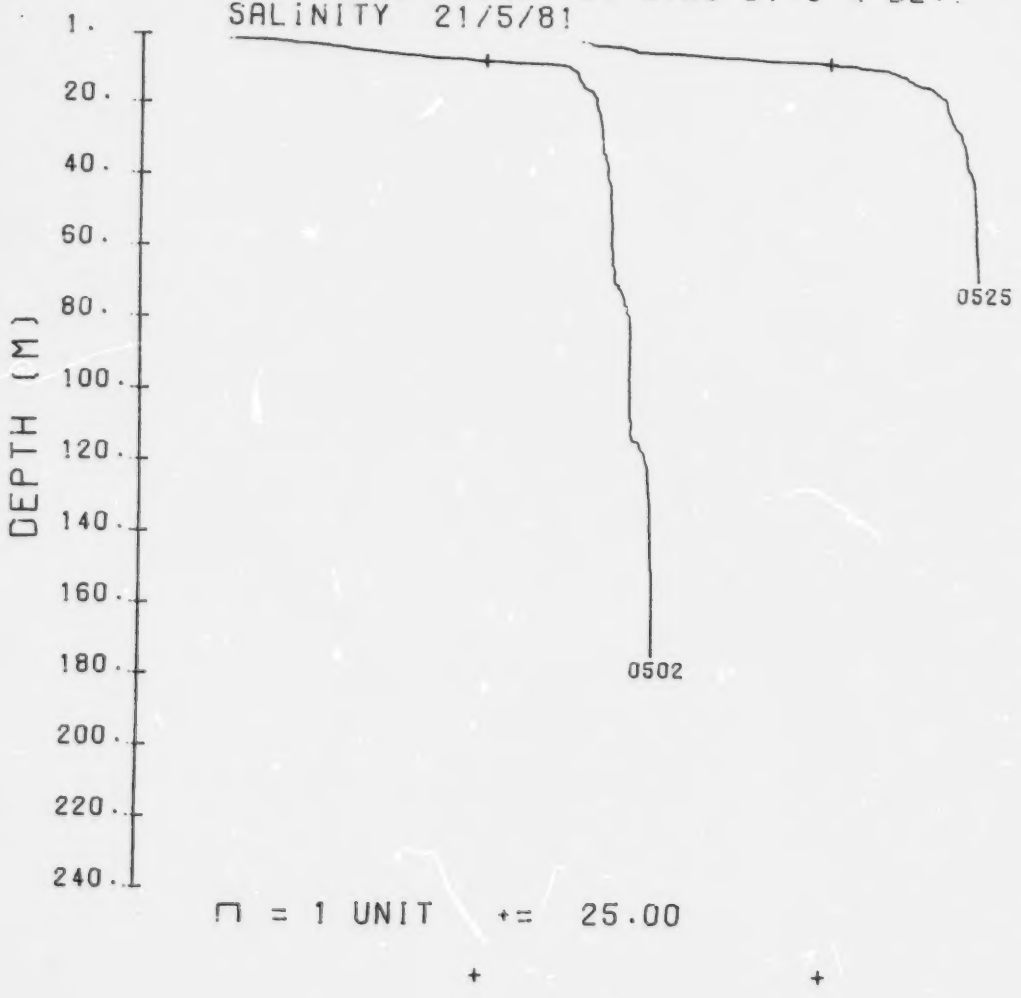

OBSERVATORY INLET STNS 1 & 2 20-21/5/81
TEMPERATURE DEG C
1.
50.
100.
150.
200.
250.
300.
350.
400.
450.
500.
DEPTH (M)
2135
0005
= 1 UNIT += 8.00

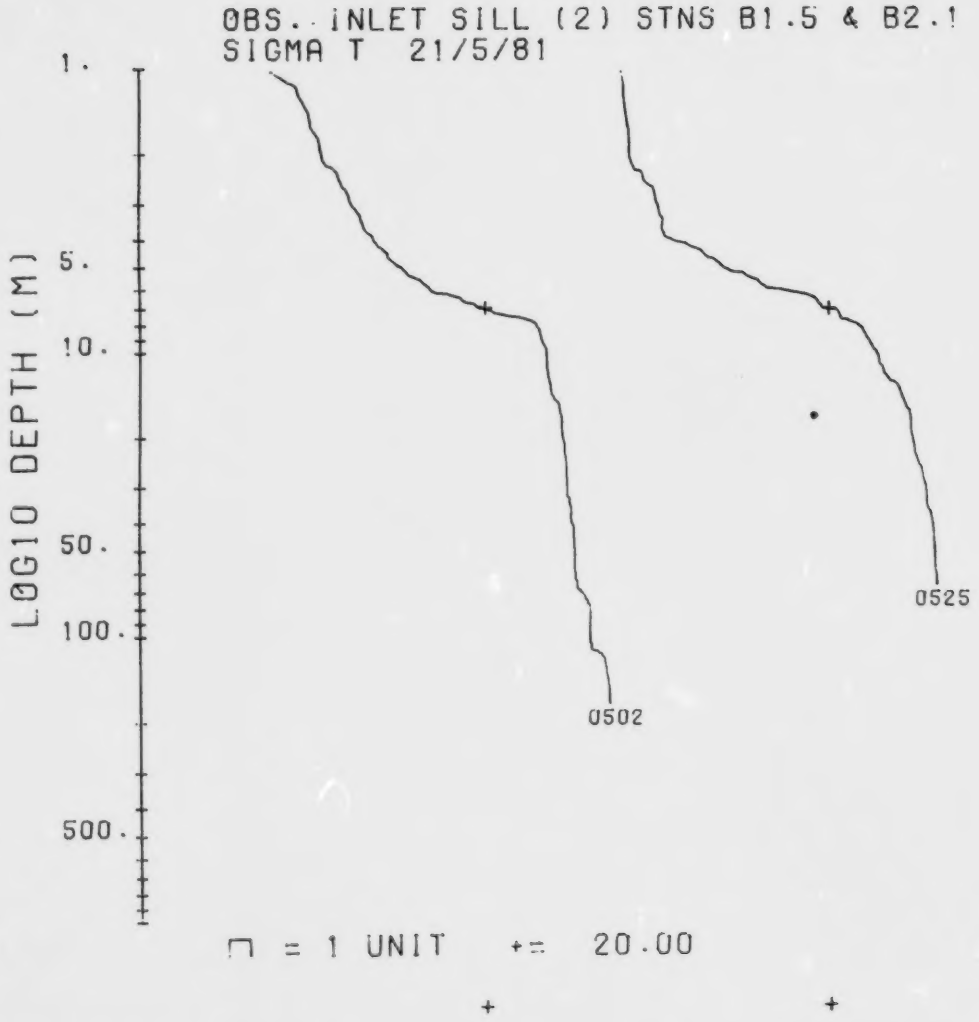

OBSERVATION INLET SILL STATION B1.5
SIGMA T 21/5/81
LOG10 DEPTH (M)
1.
5.
10.
50.
100.
500.
0412
0502
0547
0642
1009
□ = 1 UNIT += 20.00

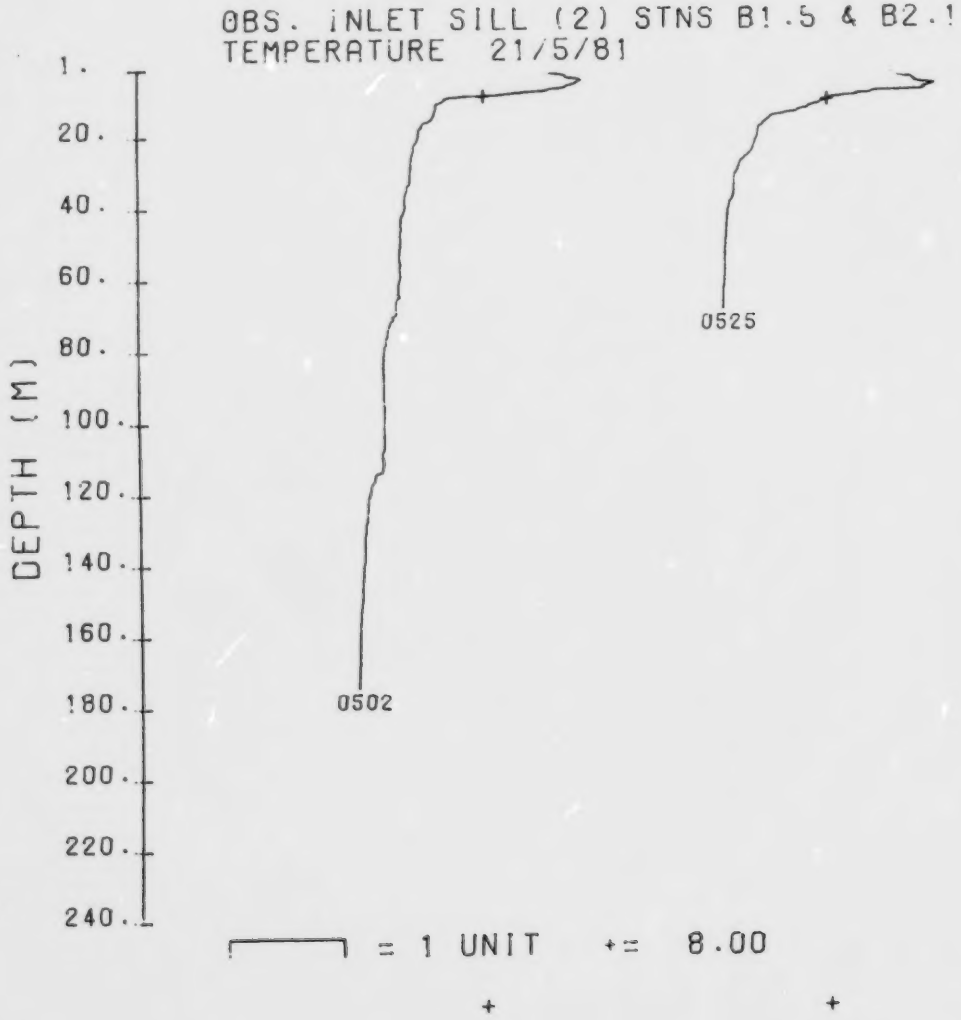

OBS. INLET SILL (1) STNS B2.5 & B1.5
SALINITY 21/5/81
1.
20.
40.
60.
80.
100.
120.
140.
160.
180.
200.
220.
240.
DEPTH (M)
0221
0412
□ = 1 UNIT += 25.00

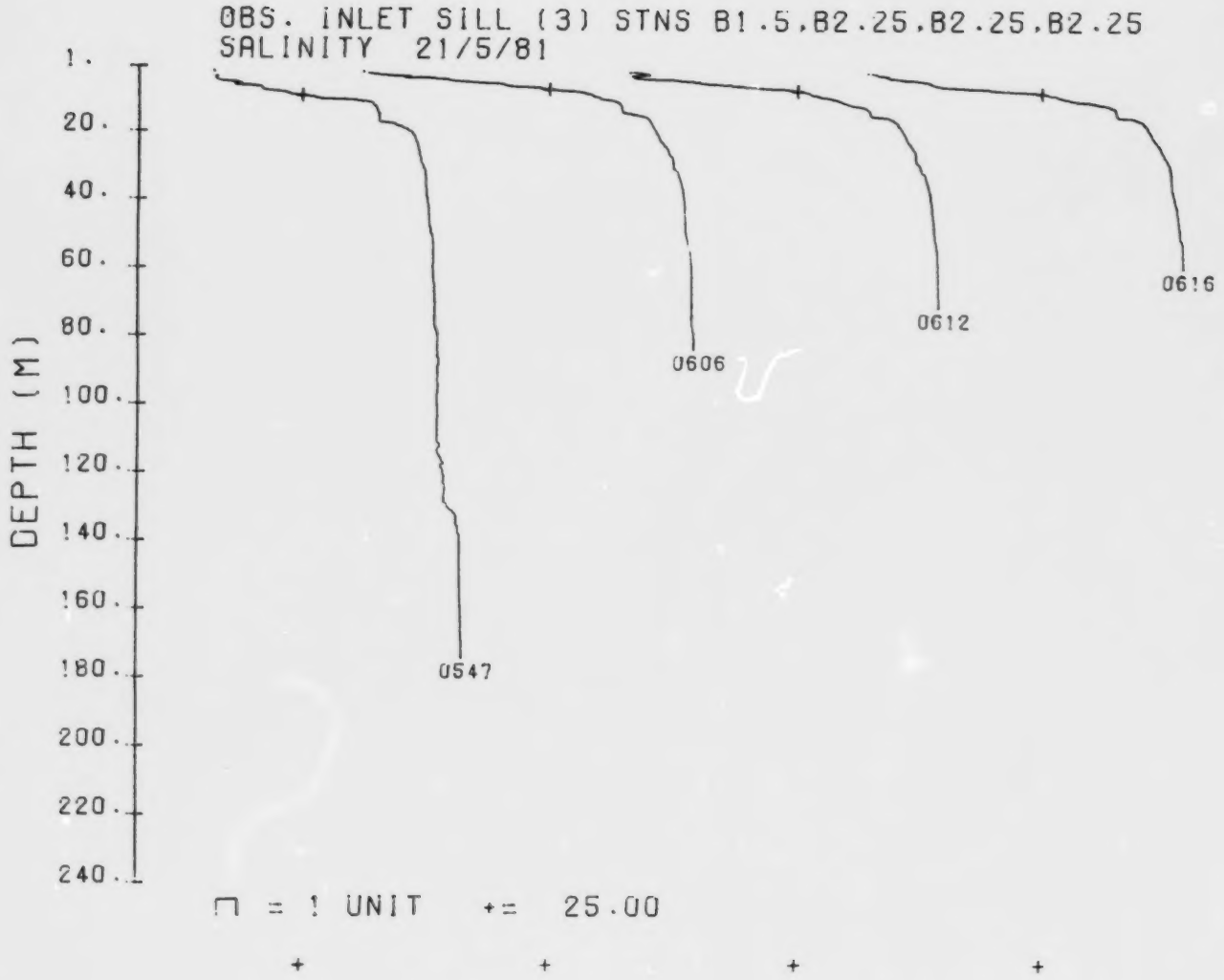

OBS. INLET SILL (1) STNS B2.5 & B1.5
SIGMA T 21/5/81
1.
5.
10.
50.
100.
500.
LOG10 DEPTH (M)
0221
0412
= 1 UNIT
+= 20.00

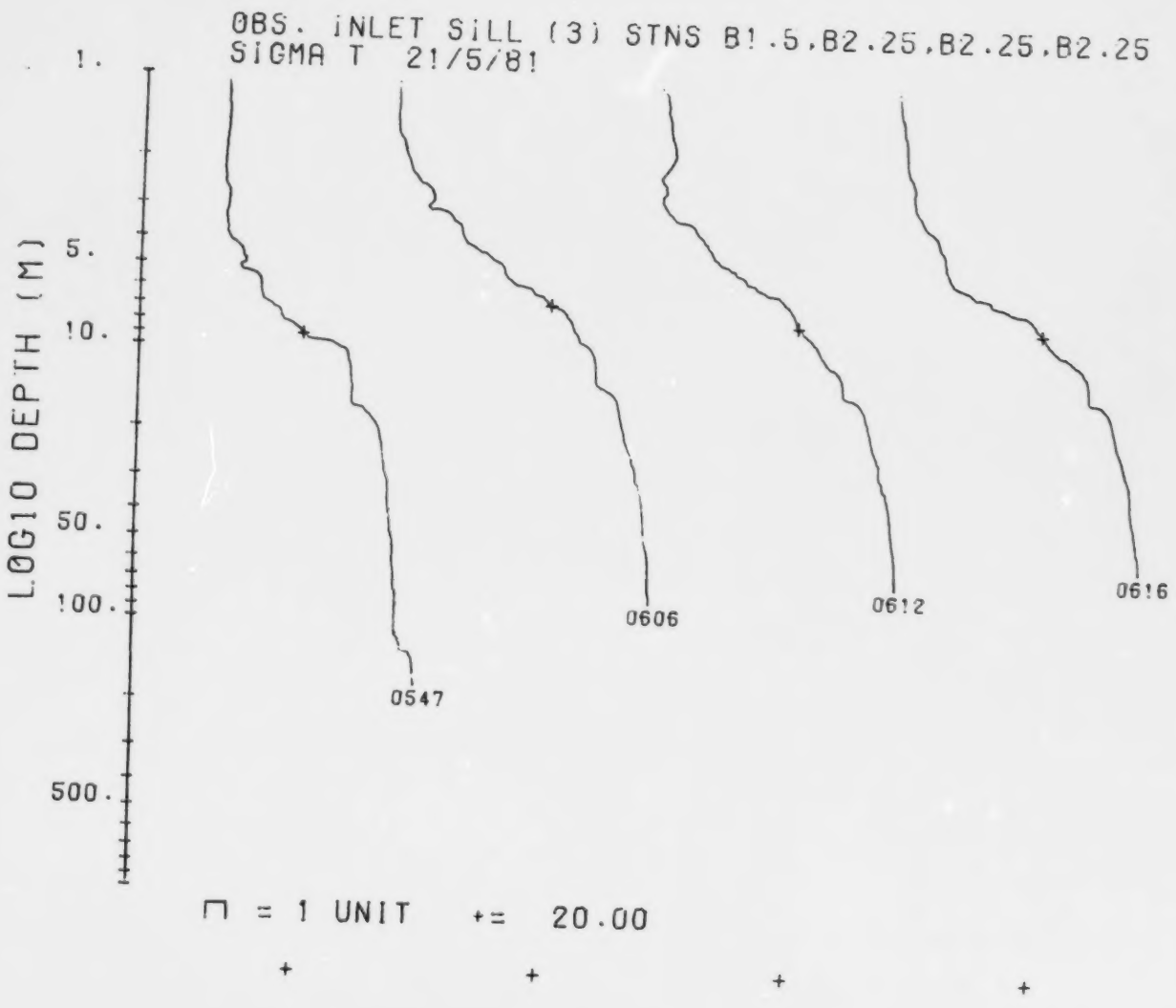

OBS. INLET SILL (1) STNS B2.5 & B1.5
TEMPERATURE 21/5/81
DEPTH (M)
1.
20.
40.
60.
80.
100.
120.
140.
160.
180.
200.
220.
240.
0221
0412
= 1 UNIT += 8.00

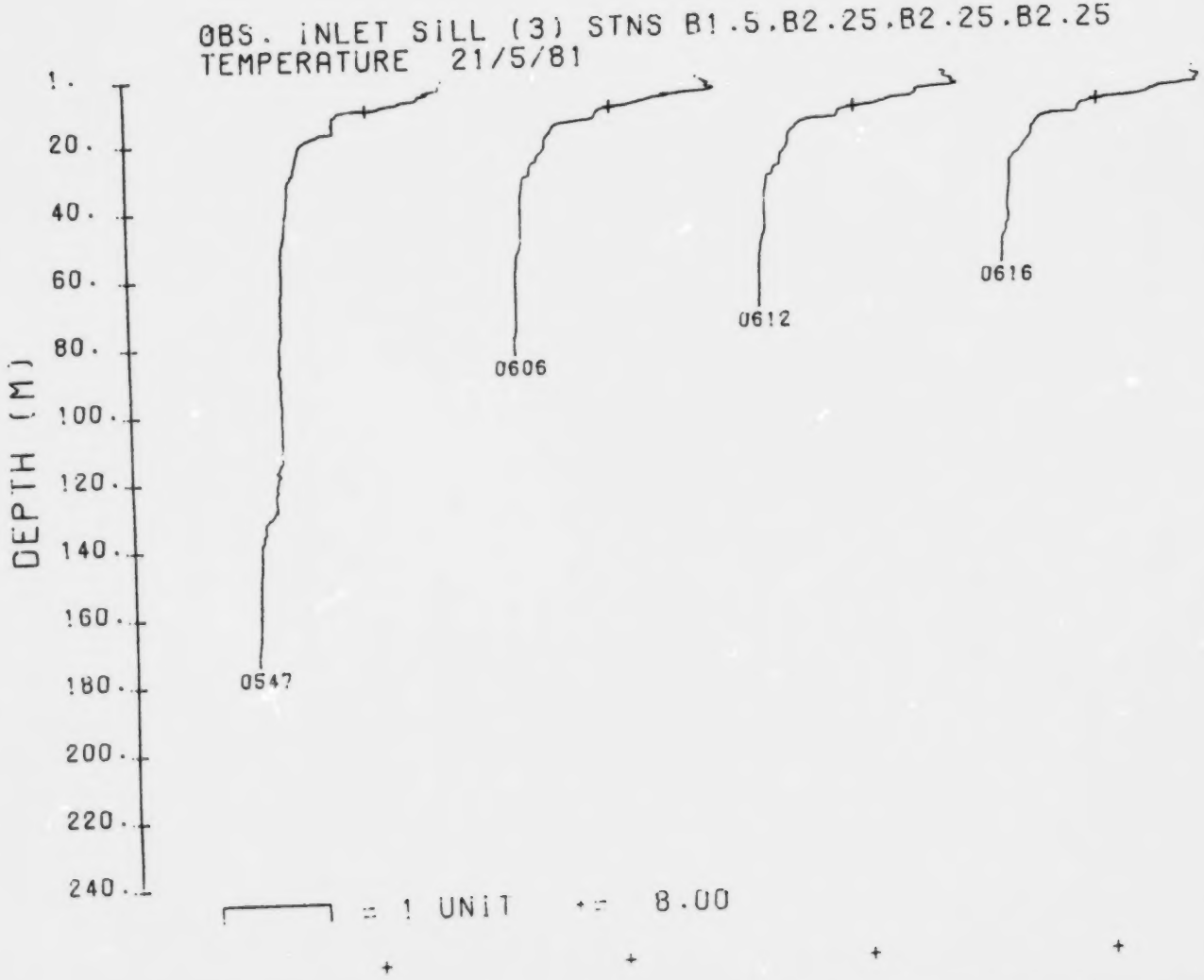

OBS. INLET SILL (2) STNS B1.5 & B2.1
SALINITY 21/5/81
1.
20.
40.
60.
80.
100.
120.
140.
160.
180.
200.
220.
240.
DEPTH (M)
0525
0502
□ = 1 UNIT += 25.00

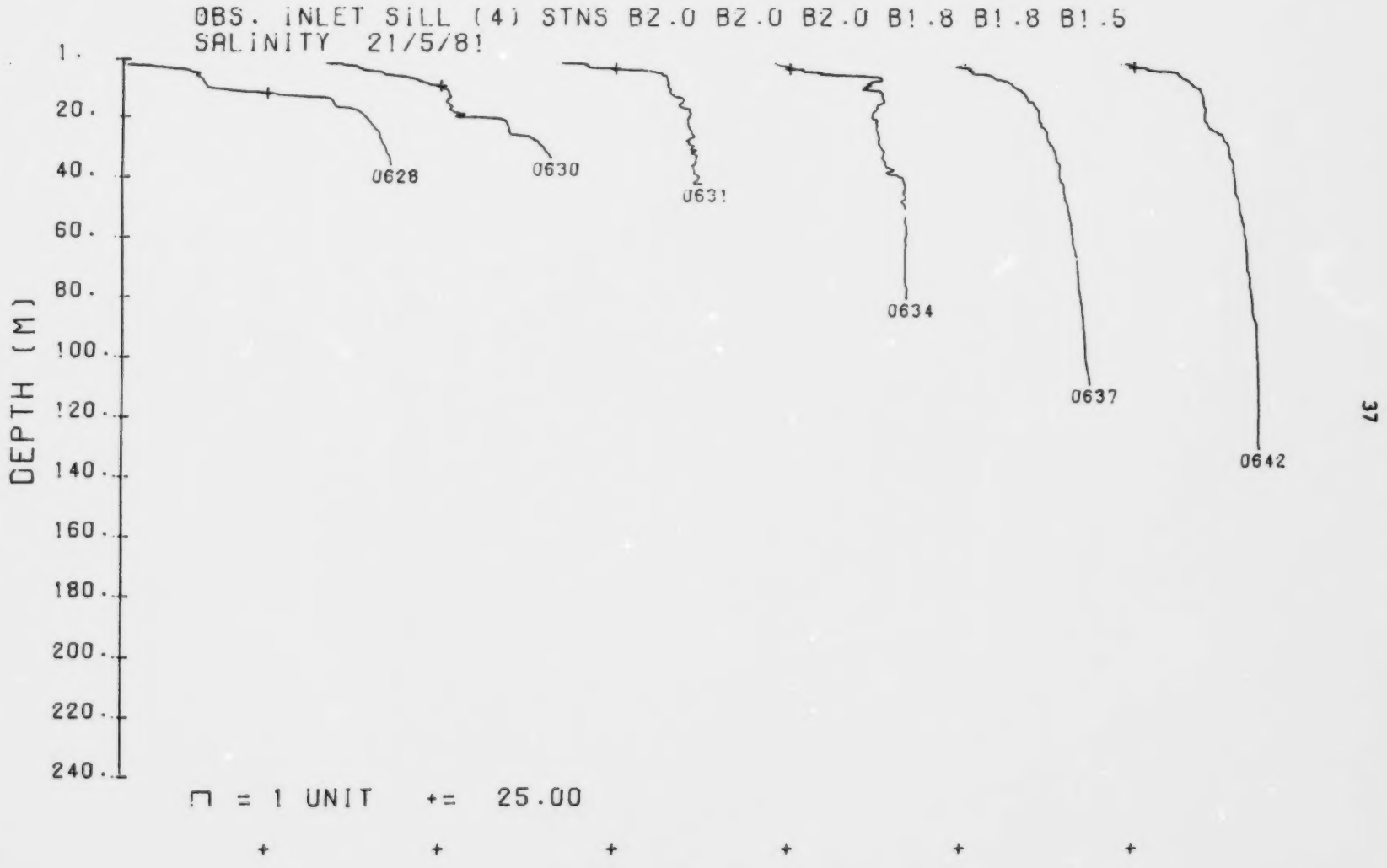

OBS. INLET SILL (2) STNS B1.5 & B2.1
SIGMA T 21/5/81
LOG10 DEPTH (M)
1.
5.
10.
50.
100.
500.
0502
0525
□ = 1 UNIT += 20.00

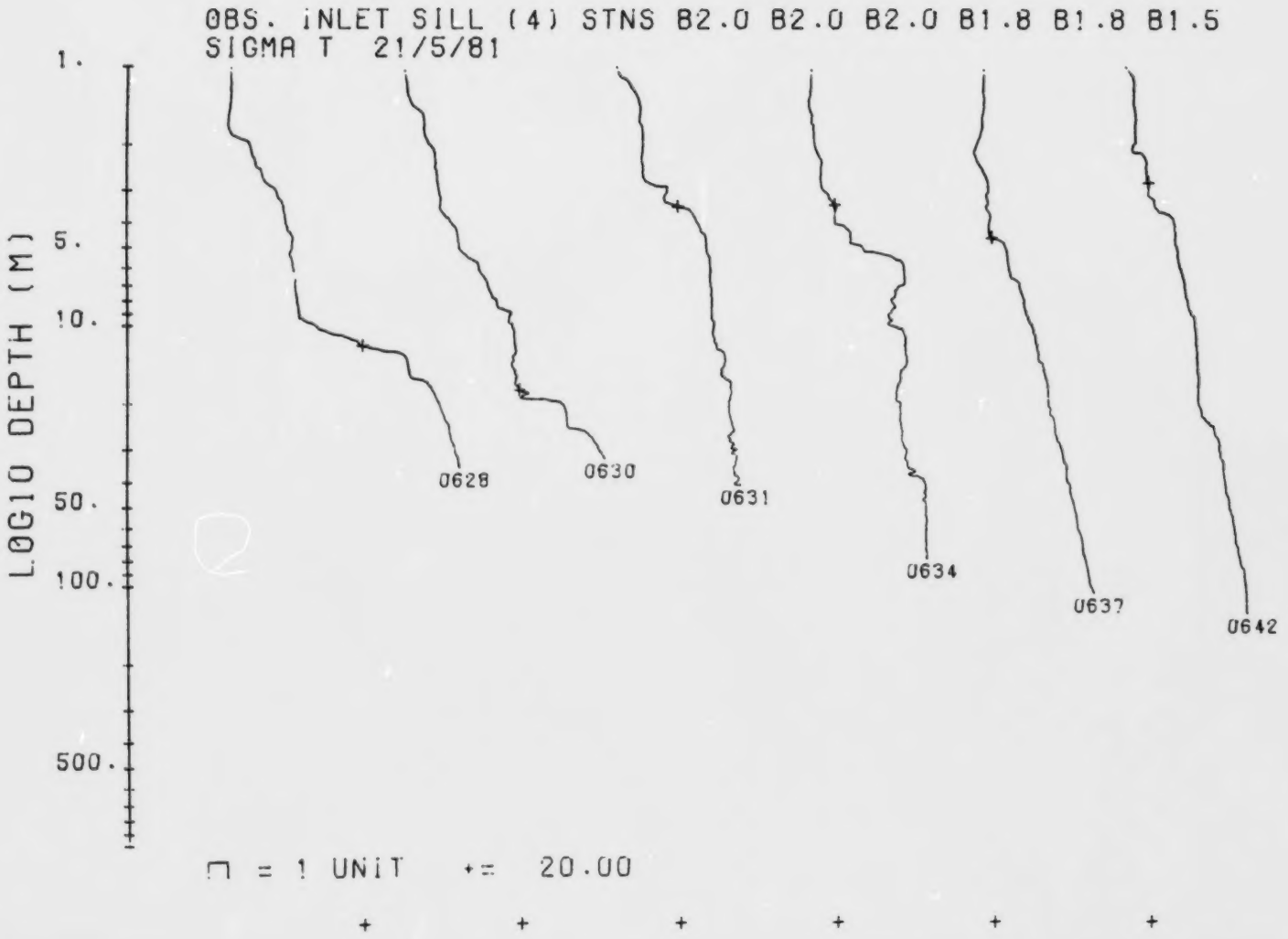

OBS. INLET SILL (2) STNS B1.5 & B2.1
TEMPERATURE 21/5/81
DEPTH (M)
1.
20.
40.
60.
80.
100.
120.
140.
160.
180.
200.
220.
240.
0502
0525
= 1 UNIT += 8.00

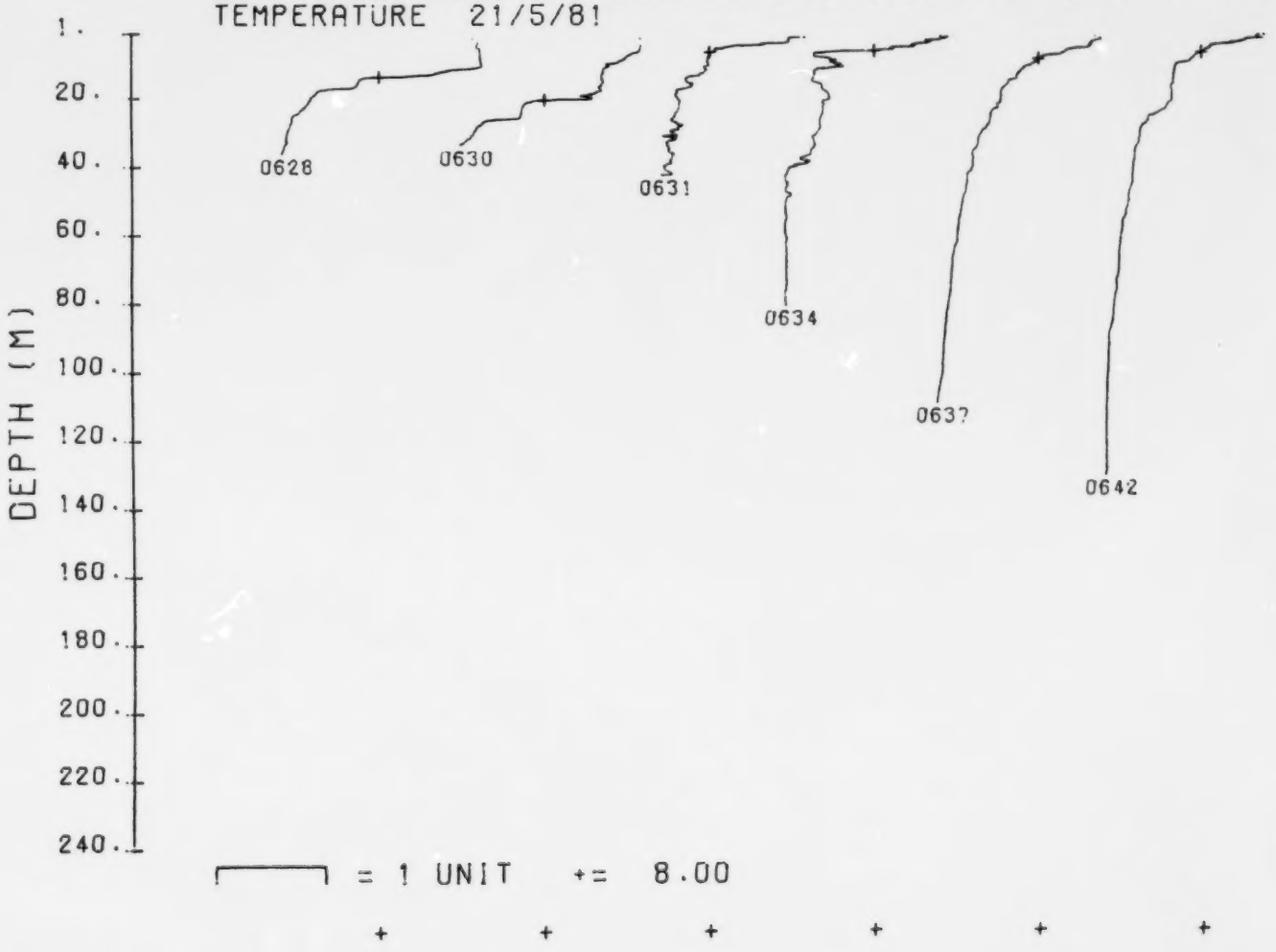

OBS. INLET SILL (3) STNS B1.5,B2.25,B2.25,B2.25
SALINITY 21/5/81
DEPTH (M)
1.
20.
40.
60.
80.
100.
120.
140.
160.
180.
200.
220.
240.
0547
0606
0612
0616
□ = 1 UNIT +=
25.00

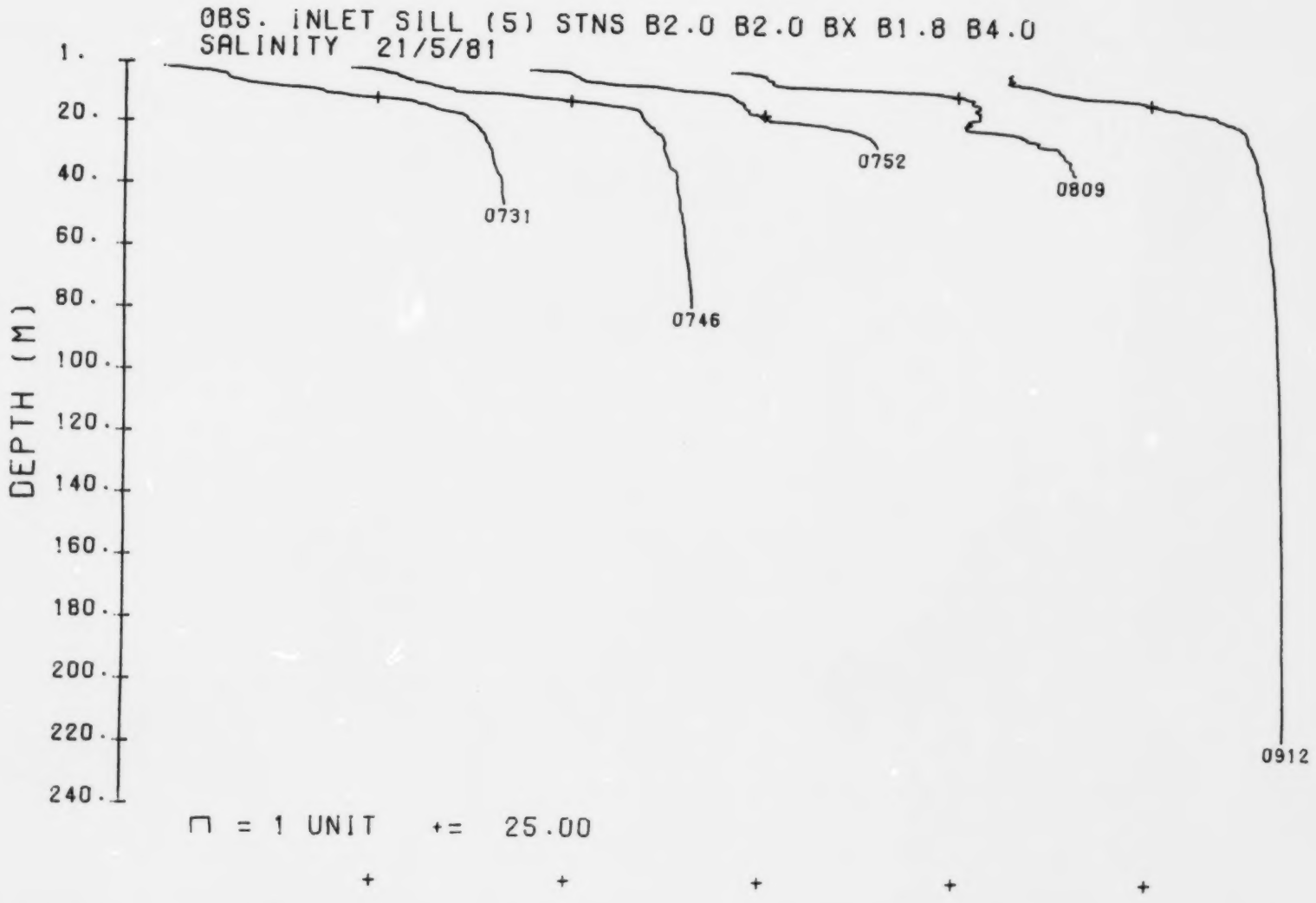

OBS. INLET SILL (3) STNS B1.5,B2.25,B2.25,B2.25
SIGMA T 21/5/81
LOG10 DEPTH (M)
1.
5.
10.
50.
100.
500.
0547
0606
0612
0616
□ = 1 UNIT
+= 20.00


OBS. INLET SILL (3) STNS B1.5.B2.25.B2.25.B2.25
TEMPERATURE 21/5/81
DEPTH (M)
1.
20.
40.
60.
80.
100.
120.
140.
160.
180.
200.
220.
240.
0547
0606
0612
0616
= 1 UNIT
8.00

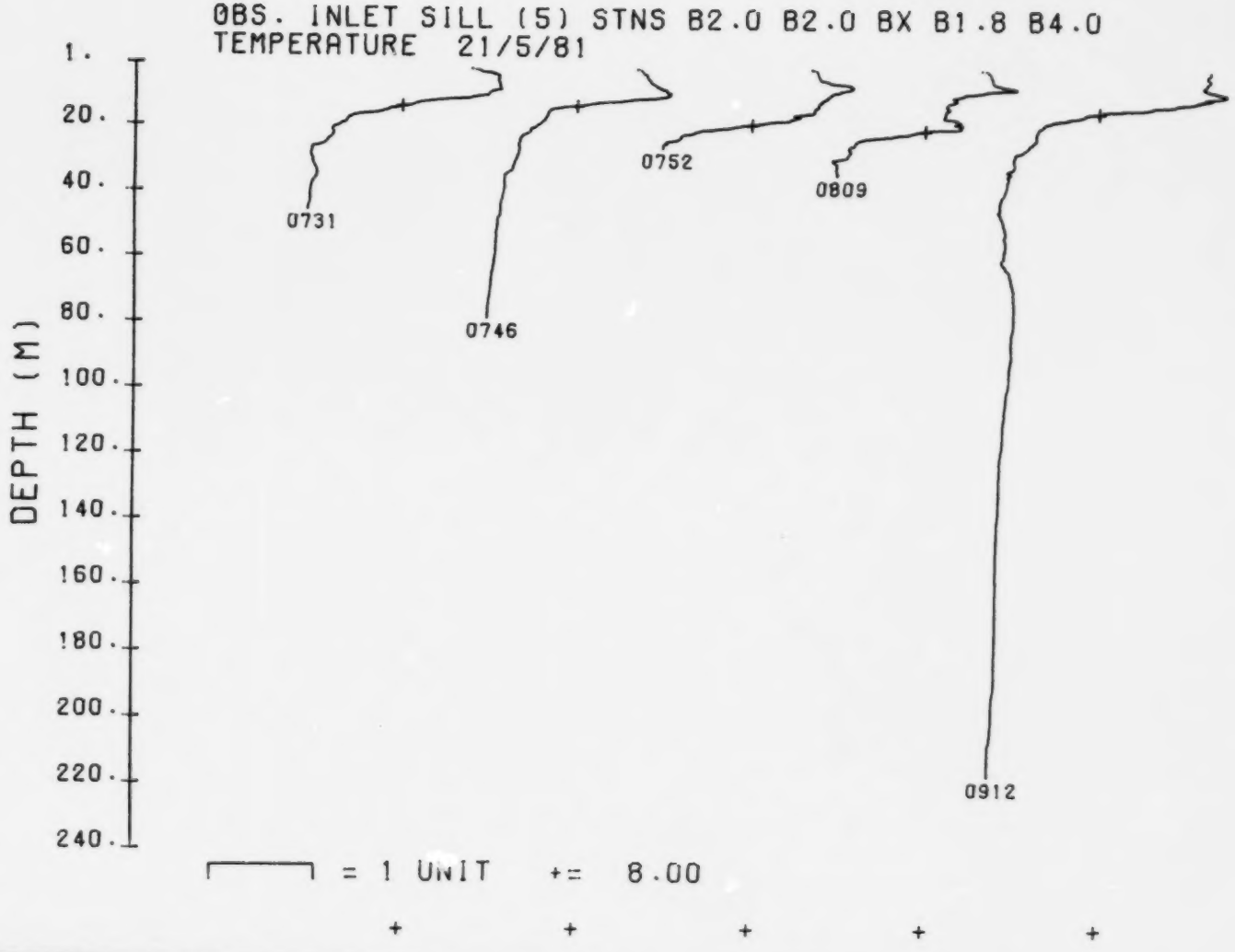

OBS. INLET SILL (4) STNS B2.0 B2.0 B2.0 B1.8 B1.8 B1.5
SALINITY 21/5/81
DEPTH (M)
1.
20.
40.
60.
80.
100.
120.
140.
160.
180.
200.
220.
240.
0628
0630
0631
0634
0637
0642
= 1 UNIT += 25.00

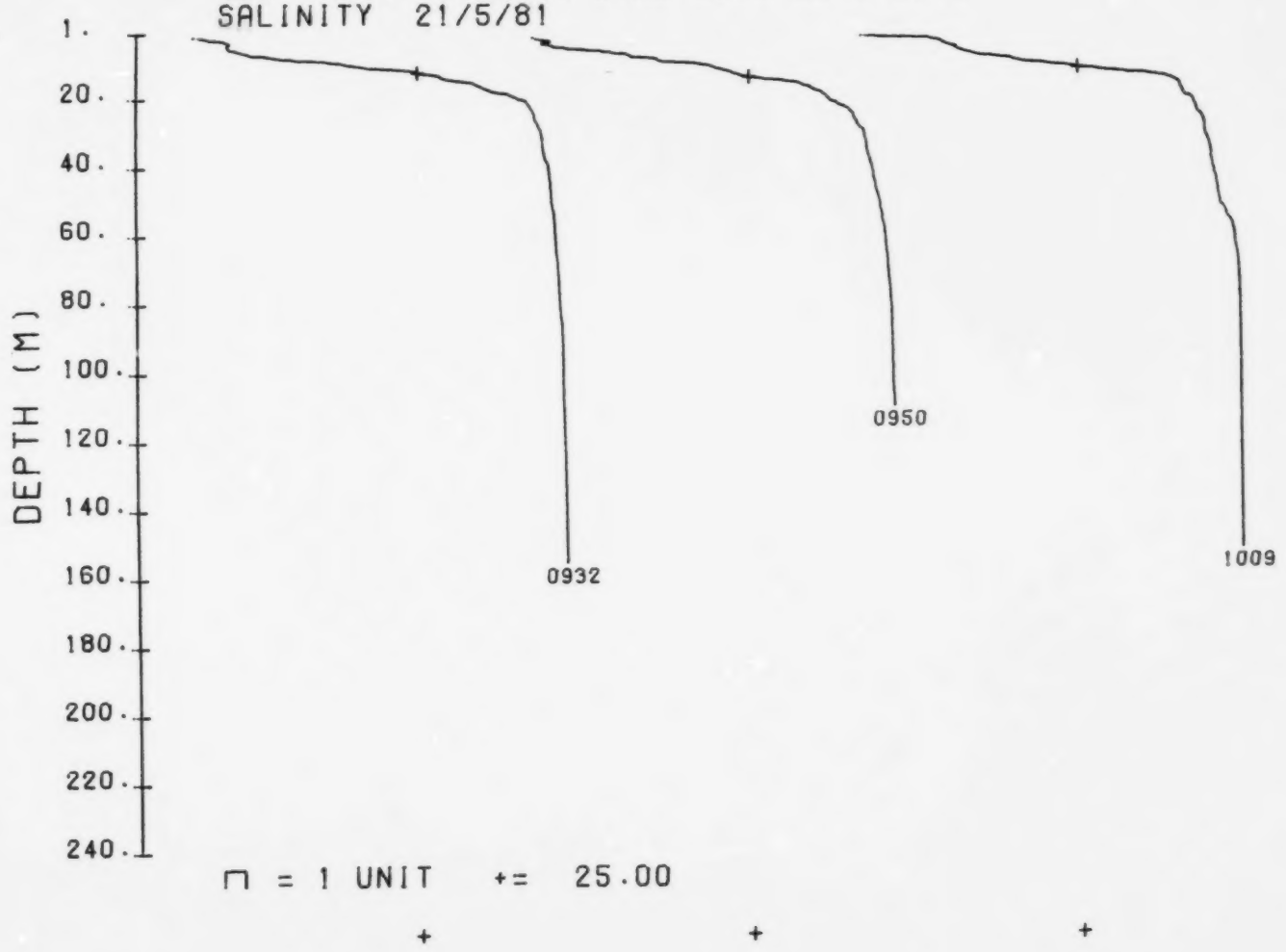

OBS. INLET SILL (4) STNS B2.0 B2.0 B2.0 B1.8 B1.8 B1.5
SIGMA T 21/5/81
LOG10 DEPTH (M)
1.
5.
10.
50.
100.
500.
0628
0630
0631
0634
0637
0642
□ = 1 UNIT += 20.00

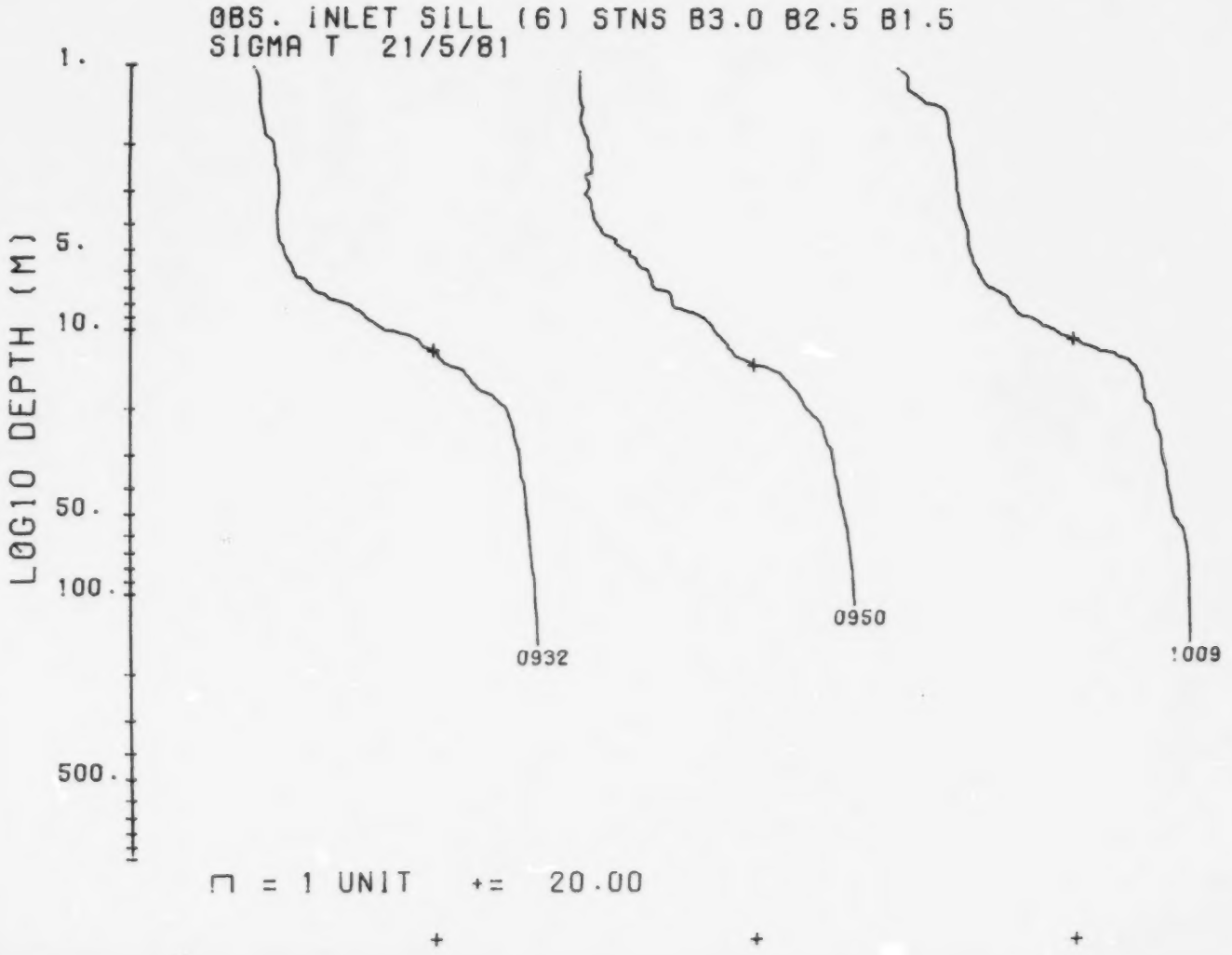

OBS. INLET SILL (4) STNS B2.0 B2.0 B2.0 B1.8 B1.8 B1.5
TEMPERATURE 21/5/81
DEPTH (M)
1.
20.
40.
60.
80.
100.
120.
140.
160.
180.
200.
220.
240.
0628
0630
0631
0634
0637
0642
= 1 UNIT += 8.00

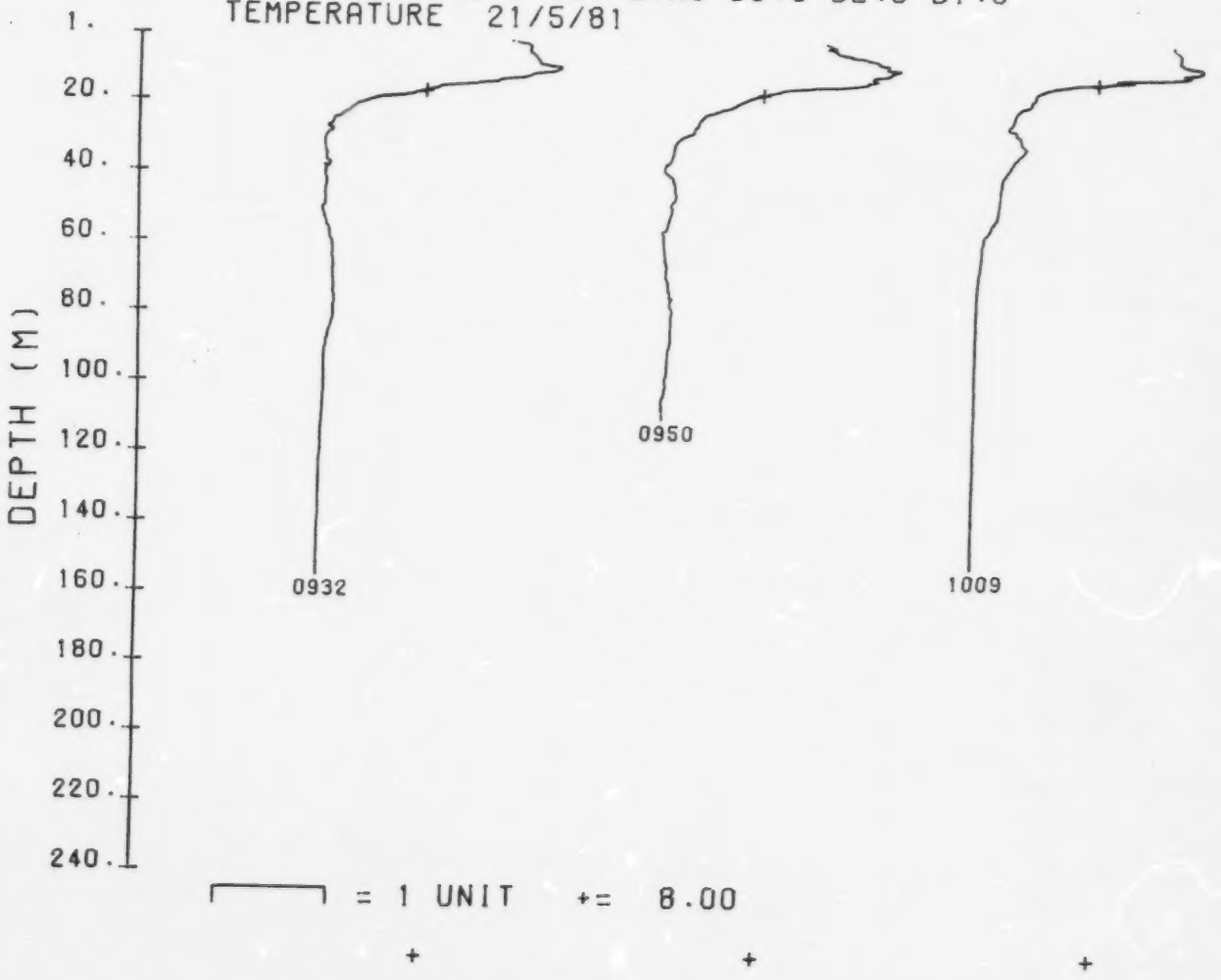

OBS. INLET SILL (5) STNS B2.0 B2.0 BX B1.8 B4.0
SALINITY 21/5/81
DEPTH (M)
1.
20.
40.
60.
80.
100.
120.
140.
160.
180.
200.
220.
240.
0731
0746
0752
0809
0912
□ = 1 UNIT
+= 25.00

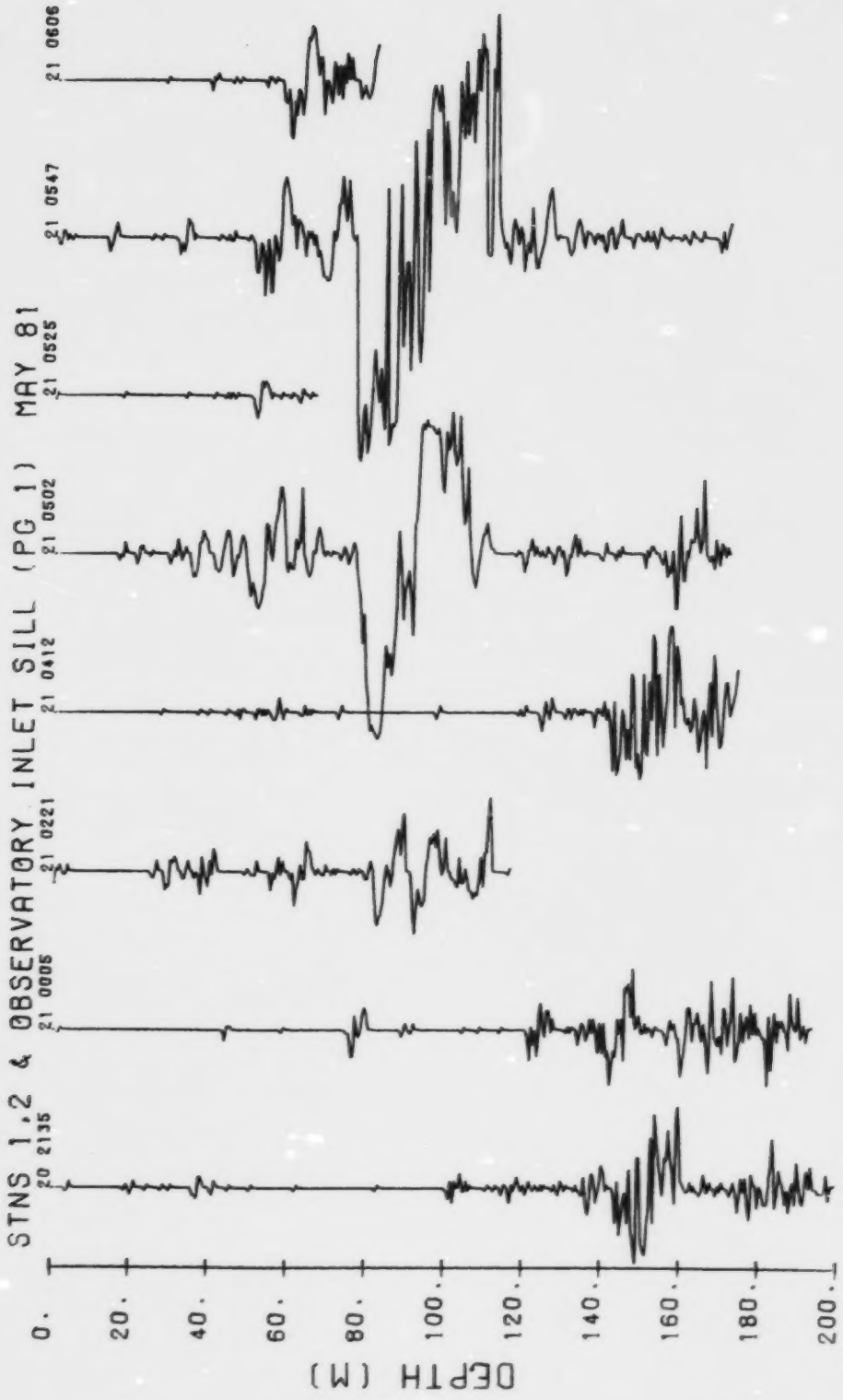
OBS. INLET SILL (5) STNS B2.0 B2.0 BX B1.8 B4.0
SIGMA T 21/5/81
LOG10 DEPTH (M)
1.
5.
10.
50.
100.
500.
0731
0746
0752
0809
0912
⊓ = 1 UNIT += 20.00

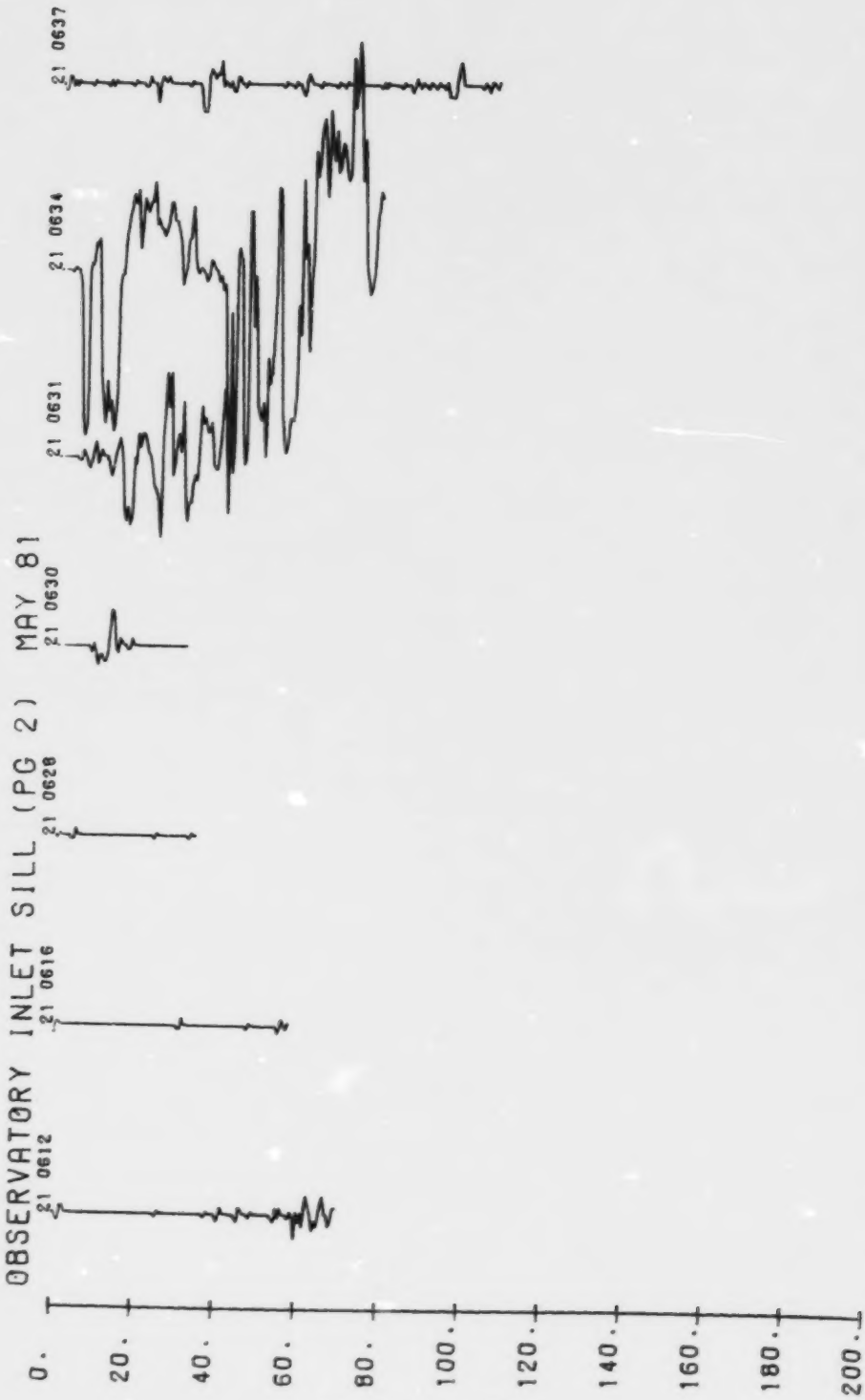

OBS. INLET SILL (5) STNS B2.0 B2.0 BX B1.8 B4.0
TEMPERATURE 21/5/81
DEPTH (M)
1.
20.
40.
60.
80.
100.
120.
140.
160.
180.
200.
220.
240.
0731
0746
0752
0809
0912
= 1 UNIT
+= 8.00

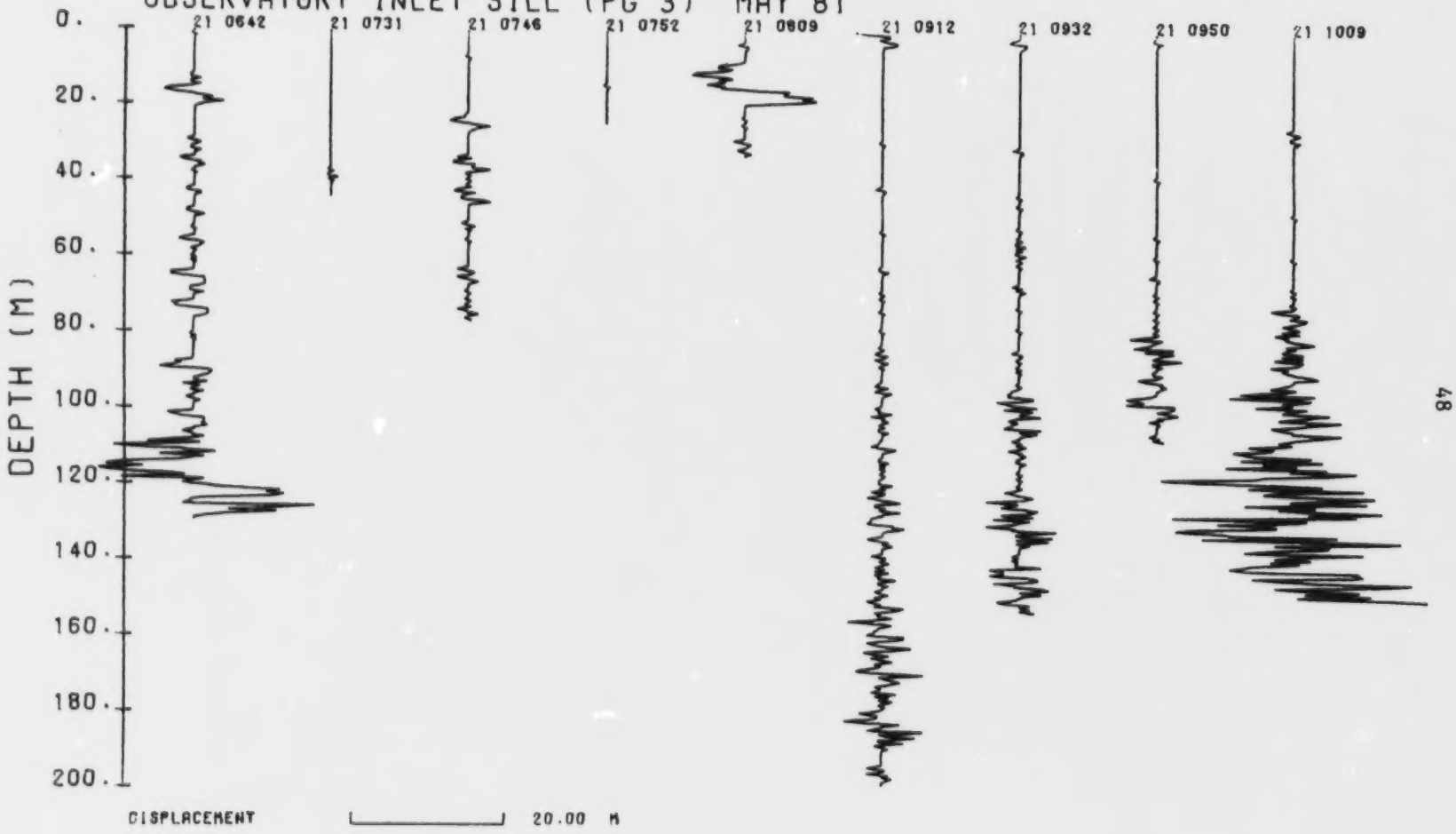

OBS. INLET SILL(6) STNS B3.0 B2.5 B1.5
SALINITY 21/5/81
DEPTH (M)
1.
20.
40.
60.
80.
100.
120.
140.
160.
180.
200.
220.
240.
0932
0950
1009
⊓ = 1 UNIT += 25.00

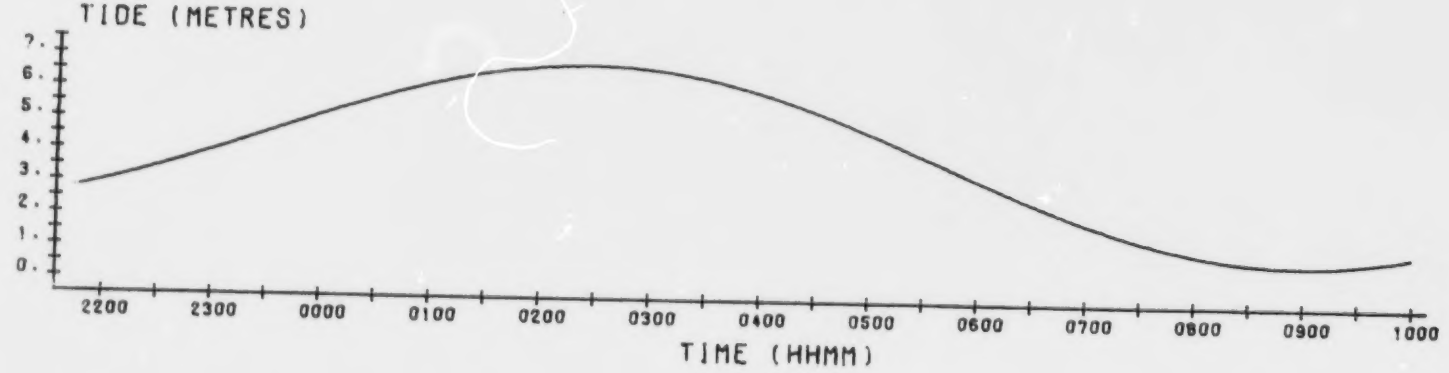

OBS. INLET SILL (6) STNS B3.0 B2.5 B1.5
SIGMA T 21/5/81
LOG10 DEPTH (M)
1.
5.
10.
50.
100.
500.
0932
0950
1009
□ = 1 UNIT +=
20.00

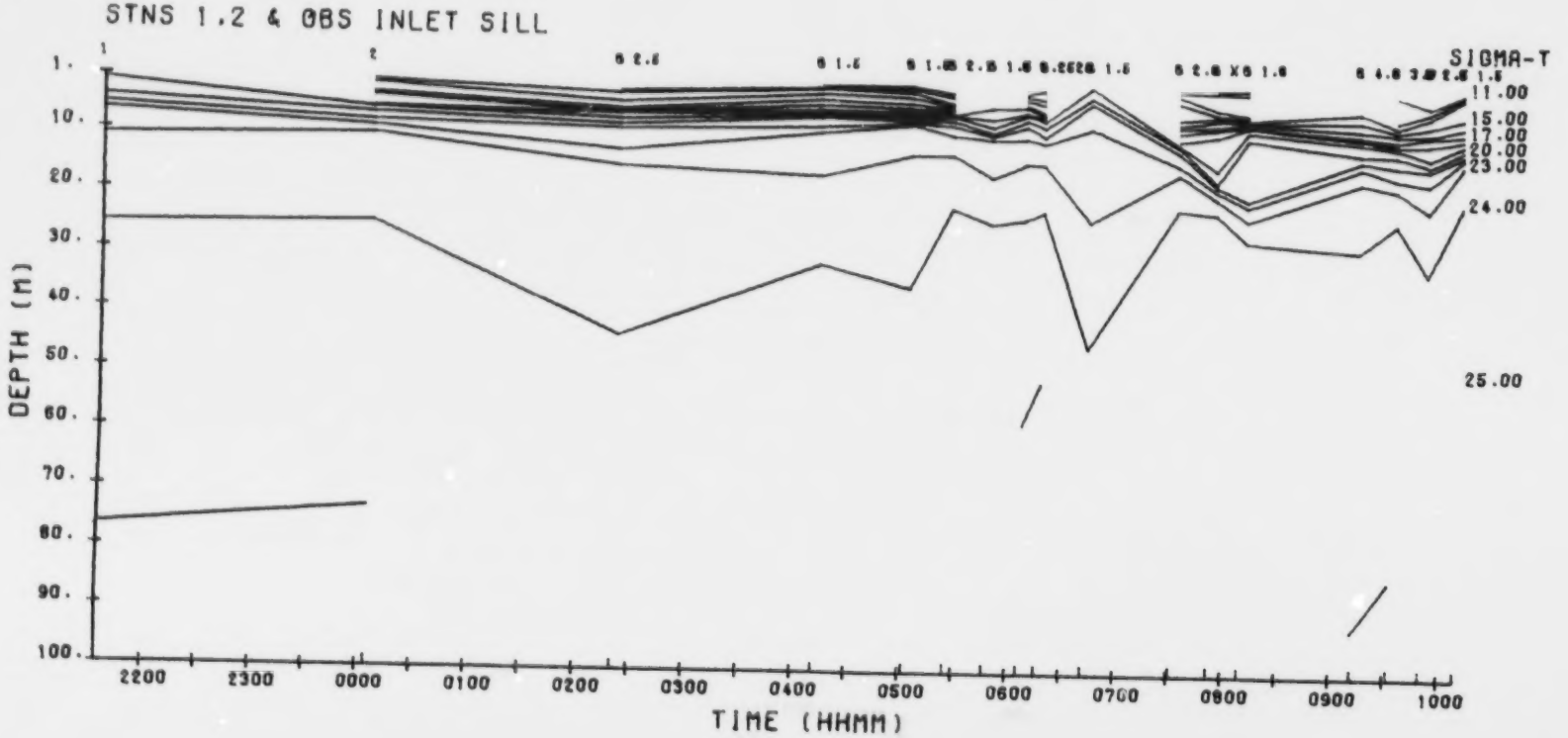

OBS. INLET SILL (6) STNS B3.0 B2.5 B1.5
TEMPERATURE 21/5/81
DEPTH (M)
1.
20.
40.
60.
80.
100.
120.
140.
160.
180.
200.
220.
240.
0932
0950
1009
= 1 UNIT
+= 8.00

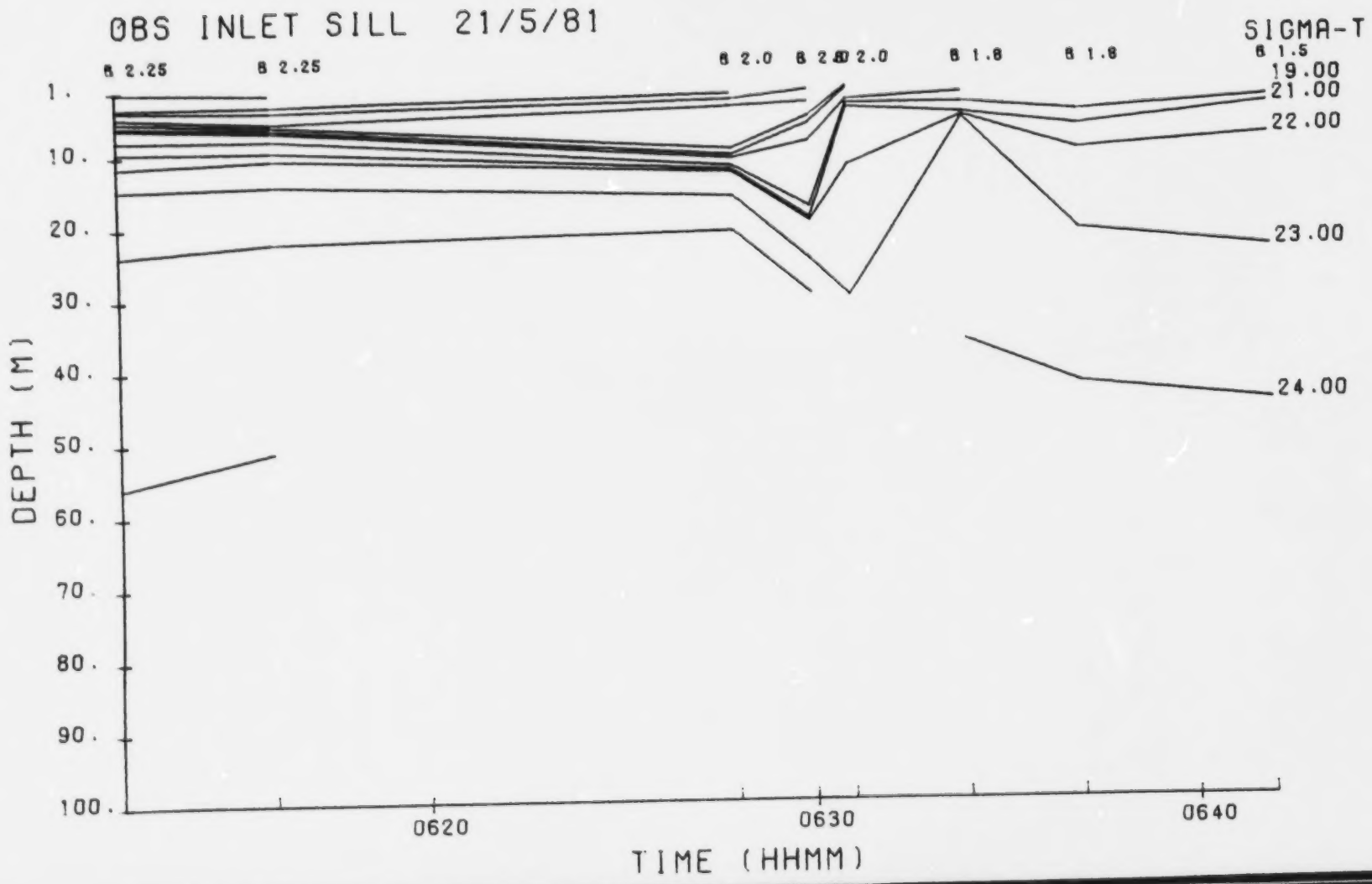

STNS 1,2 & OBSERVATORY INLET SILL (PG 1) MAY 81
20 2135
21 0005
21 0221
21 0412
21 0502
21 0525
21 0547
21 0606
0.
20.
40.
60.
80.
100.
120.
140.
160.
180.
200.
DEPTH (M)
DISPLACEMENT
20.00 M

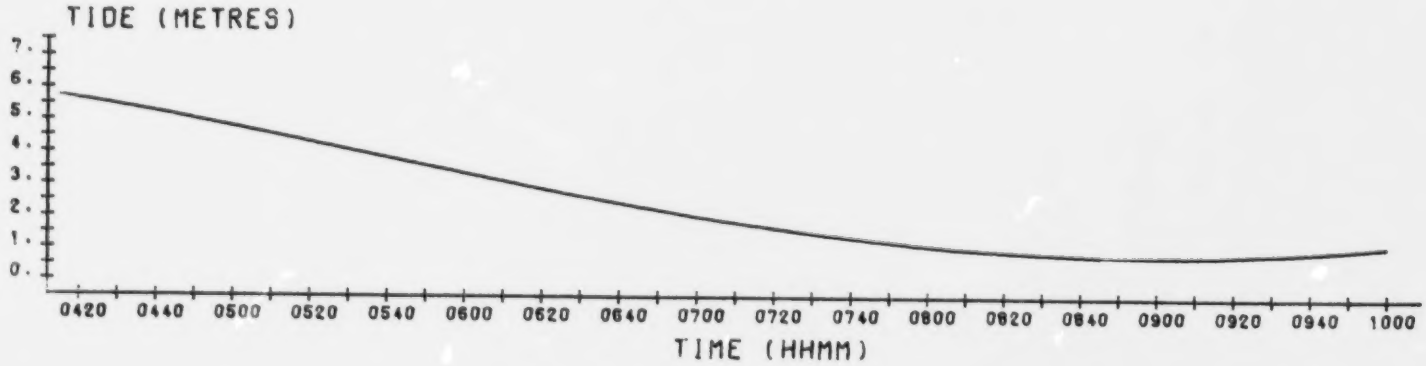

OBSERVATORY INLET SILL (PG 2) MAY 81
21 0612
21 0616
21 0628
21 0630
21 0631
21 0634
21 0637
DEPTH (M)
0.
20.
40.
60.
80.
100.
120.
140.
160.
180.
200.
DISPLACEMENT
20.00 M

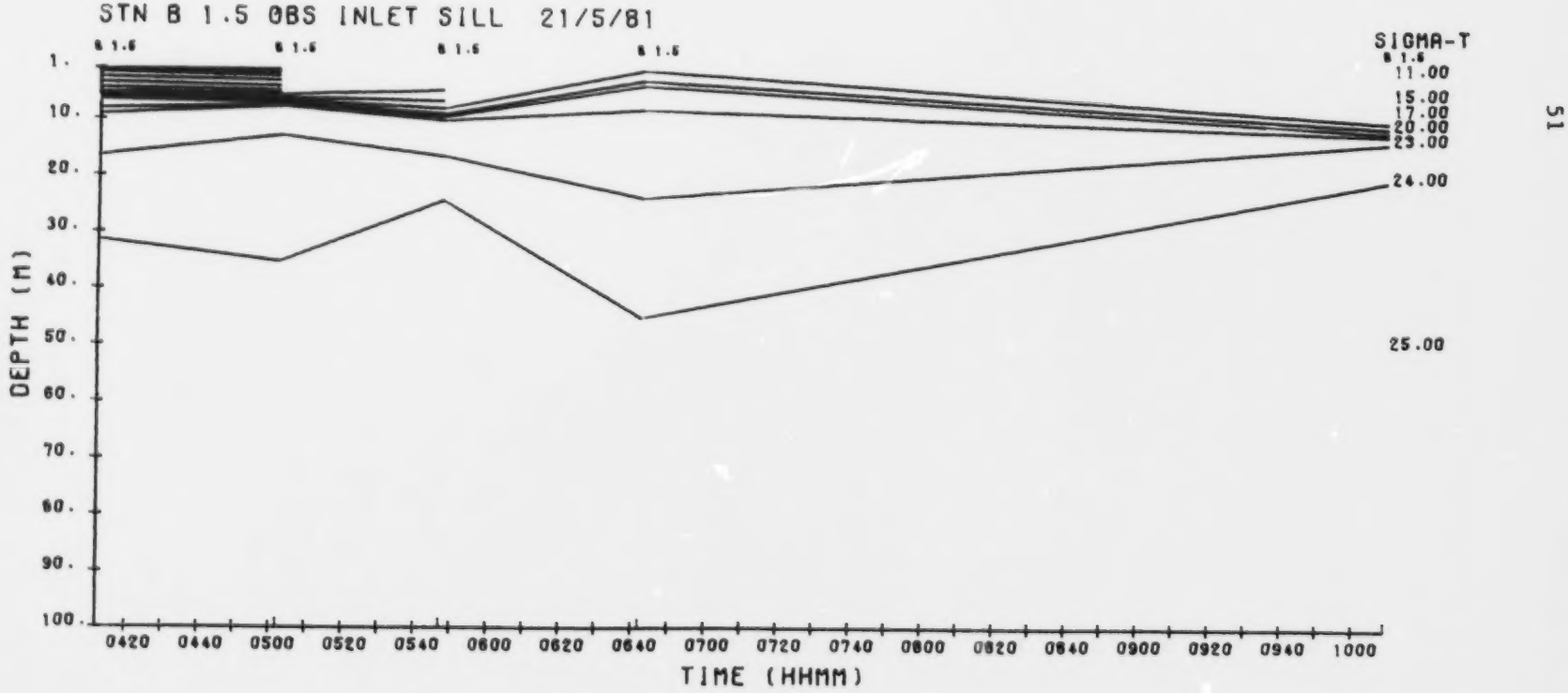

OBSERVATORY INLET SILL (PG 3) MAY 81
21 0642
21 0731
21 0746
21 0752
21 0809
21 0912
21 0932
21 0950
21 1009
0.
20.
40.
60.
80.
100.
120.
140.
160.
180.
200.
DEPTH (M)
DISPLACEMENT
20.00 M


TIDE (METRES)
7.
6.
5.
4.
3.
2.
1.
0.
2200
2300
0000
0100
0200
0300
0400
0500
0600
0700
0800
0900
1000
TIME (HHMM)

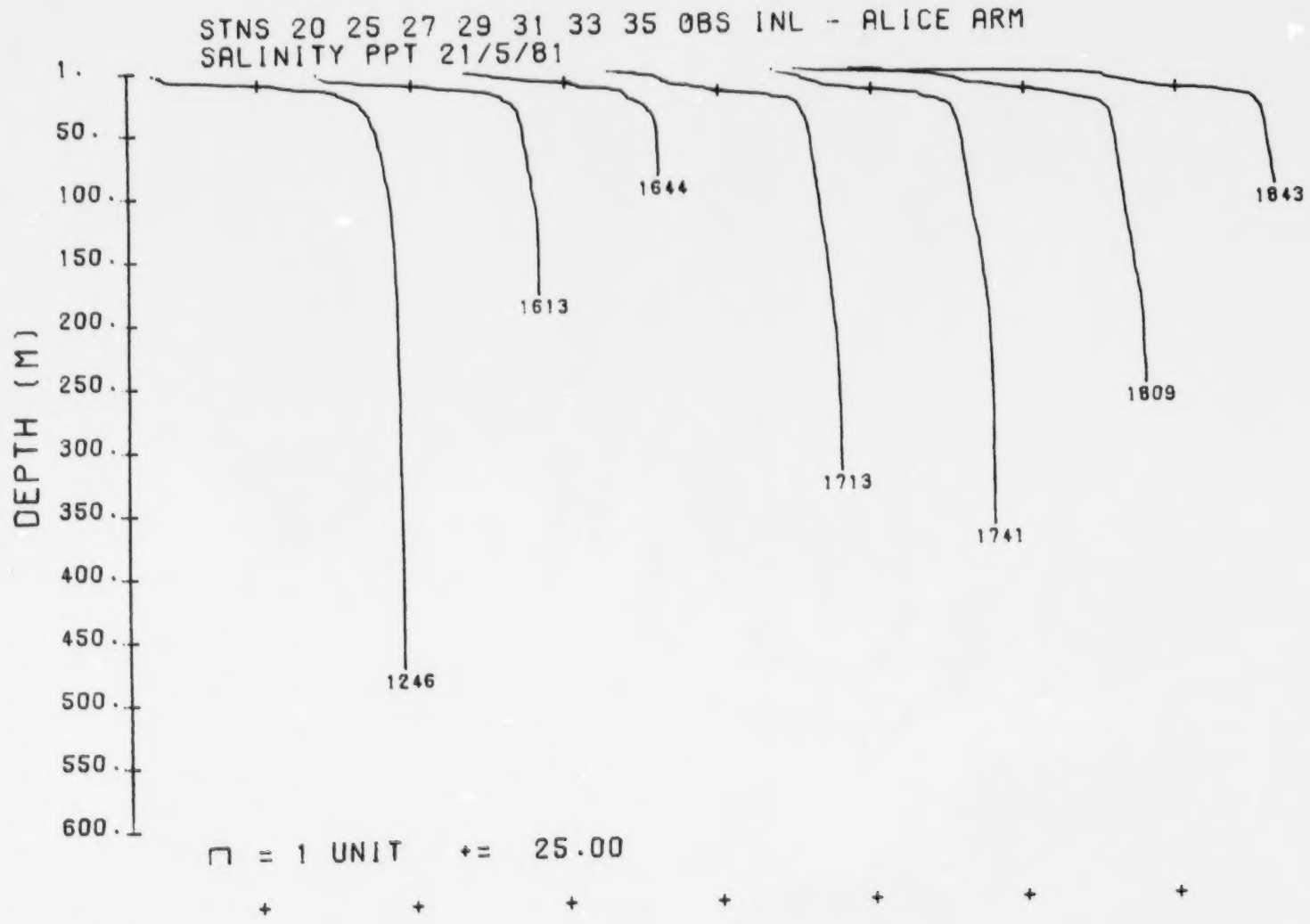

STNS 1.2 & OBS INLET SILL
SIGMA-T
11.00
15.00
17.00
20.00
23.00
24.00
25.00
DEPTH (M)
1.
10.
20.
30.
40.
50.
60.
70.
80.
90.
100.
2200
2300
0000
0100
0200
0300
0400
0500
0600
0700
0800
0900
1000
TIME (HHMM)

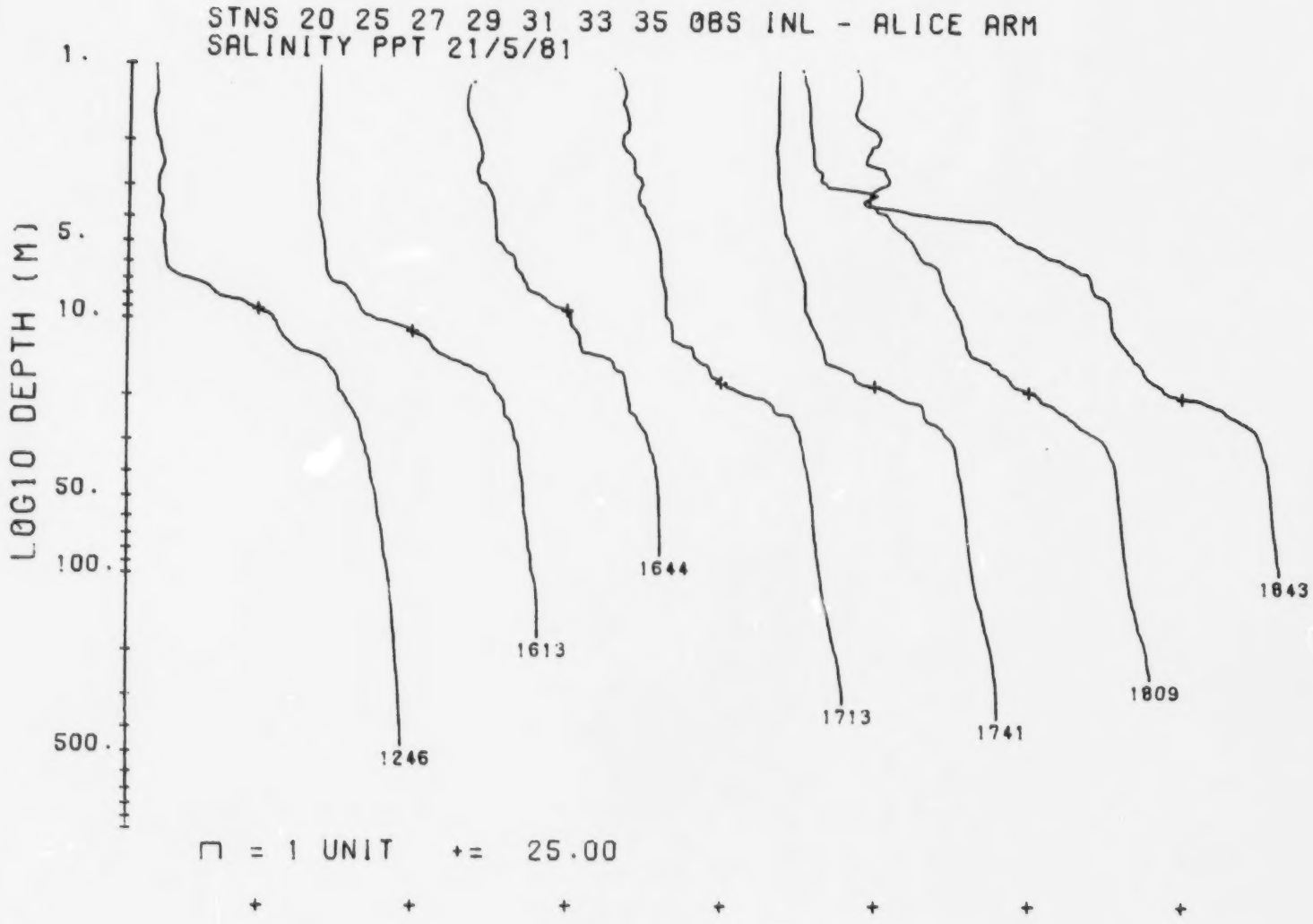

OBS INLET SILL 21/5/81
SIGMA-T
19.00
21.00
22.00
23.00
24.00
DEPTH (M)
1.
10.
20.
30.
40.
50.
60.
70.
80.
90.
100.
0620
0630
0640
TIME (HHMM)


TIDE (METRES)
7.
6.
5.
4.
3.
2.
1.
0.
0420 0440 0500 0520 0540 0600 0620 0640 0700 0720 0740 0800 0820 0840 0900 0920 0940 1000
TIME (HHMM)

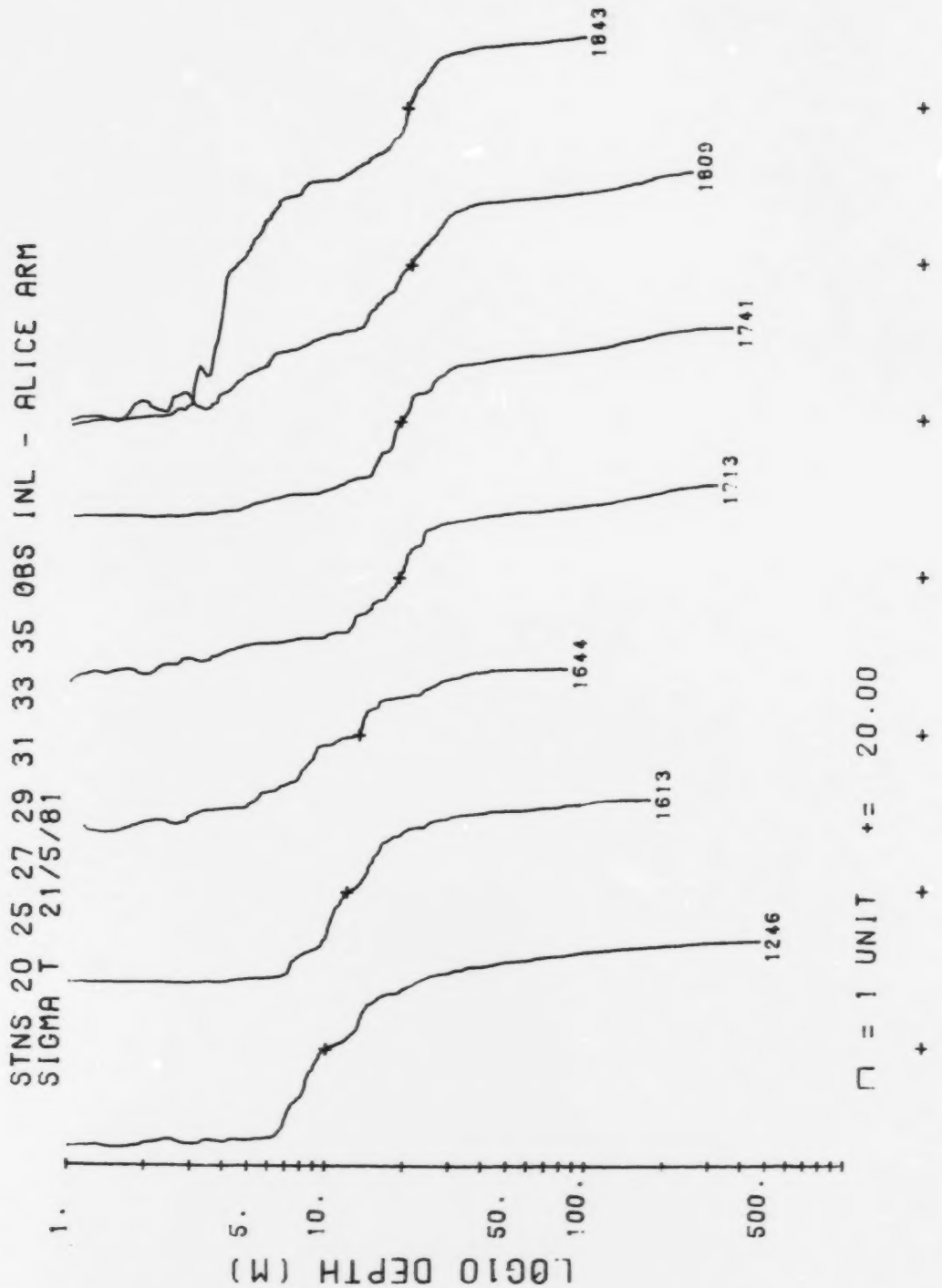

STN B 1.5 OBS INLET SILL 21/5/81
B 1.5
B 1.5
B 1.5
B 1.5
SIGMA-T
B 1.5
11.00
15.00
17.00
20.00
23.00
24.00
25.00
DEPTH (M)
1.
10.
20.
30.
40.
50.
60.
70.
80.
90.
100.
0420 0440 0500 0520 0540 0600 0620 0640 0700 0720 0740 0800 0820 0840 0900 0920 0940 1000
TIME (HHMM)

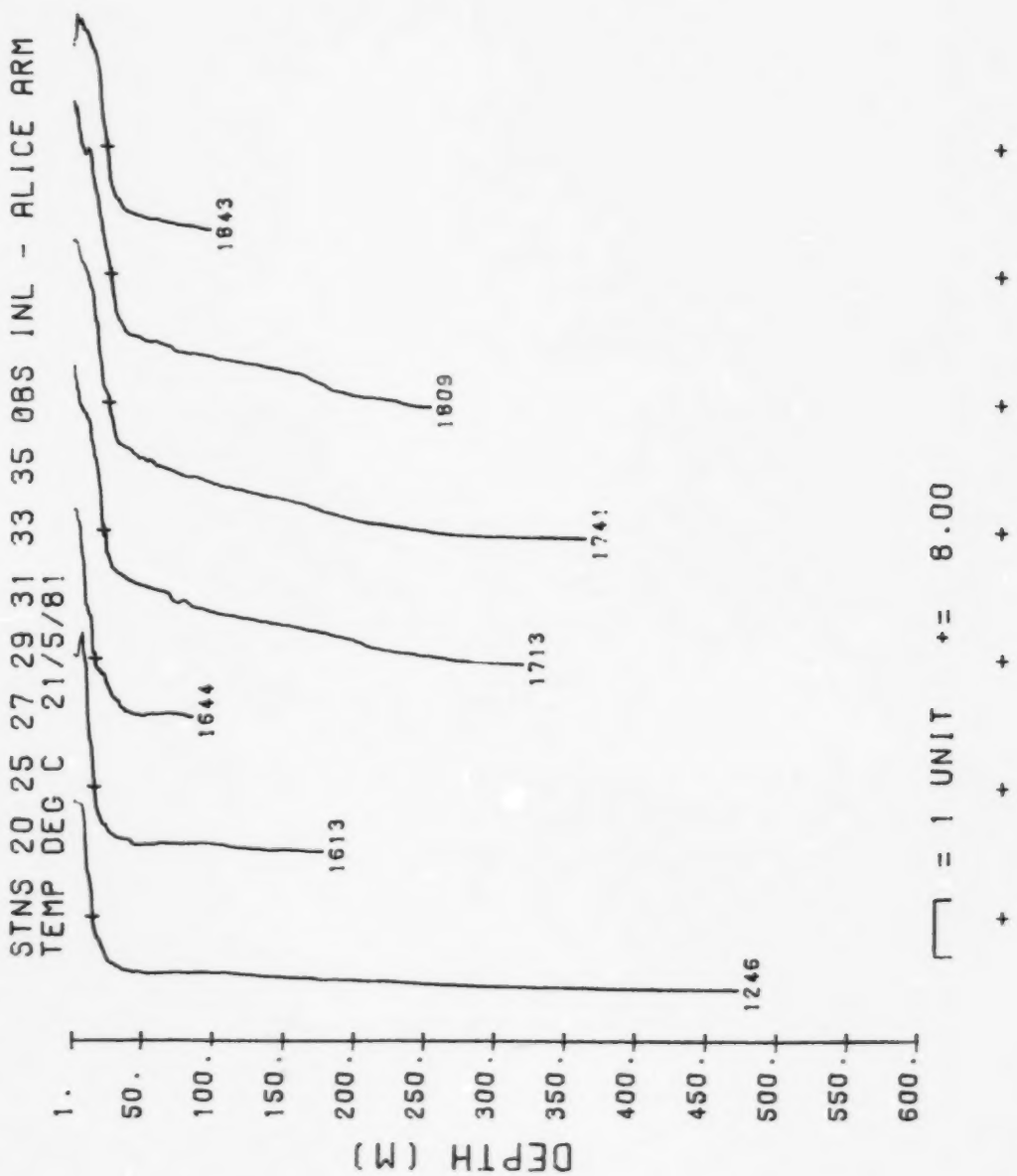
SET B: ALICE ARM - ALONG CHANNEL 21/5/81

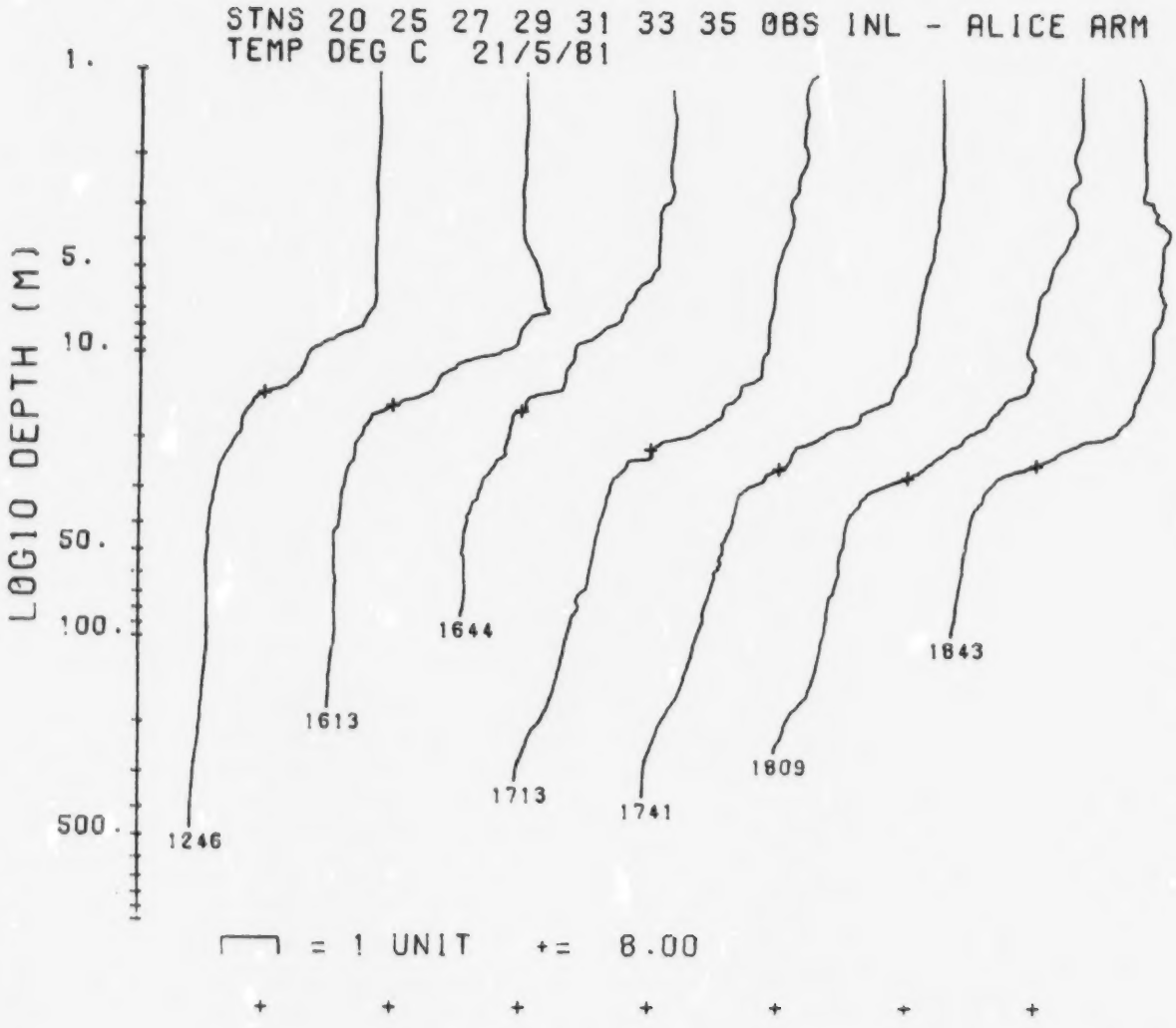

STNS 20 25 27 29 31 33 35 OBS INL - ALICE ARM
SALINITY PPT 21/5/81
DEPTH (M)
1.
50.
100.
150.
200.
250.
300.
350.
400.
450.
500.
550.
600.
1246
1613
1644
1713
1741
1809
1843
⊓ = 1 UNIT += 25.00

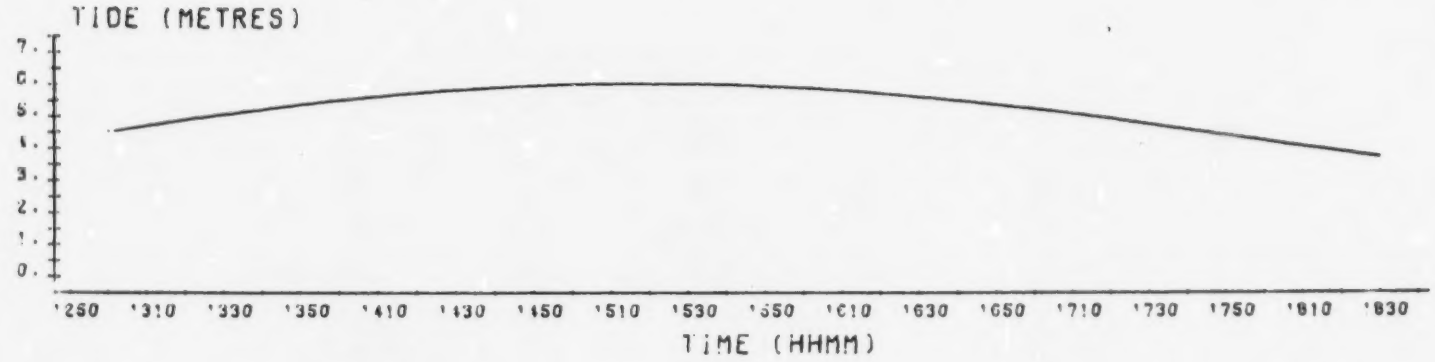

STNS 20 25 27 29 31 33 35 OBS INL - ALICE ARM
SALINITY PPT 21/5/81
LOG10 DEPTH (M)
1.
5.
10.
50.
100.
500.
1246
1613
1644
1713
1741
1809
1843
□ = 1 UNIT
+= 25.00

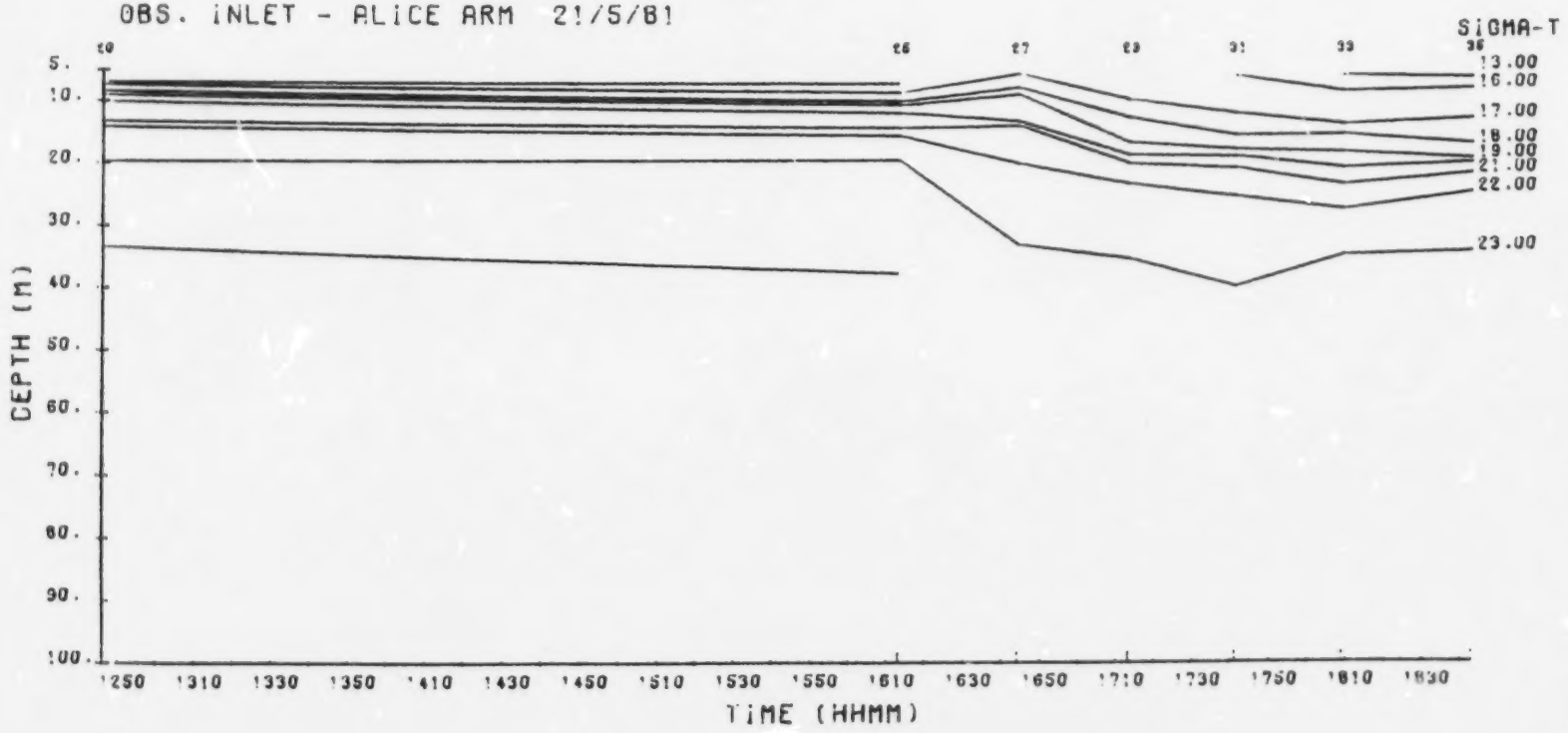
STNS 20 25 27 29 31 33 35 OBS INL - ALICE ARM
SIGMA T 21/5/81
DEPTH (M)
1.
50.
100.
150.
200.
250.
300.
350.
400.
450.
500.
550.
600.
1246
1613
1644
1713
1741
1609
1643
⊓ = 1 UNIT += 20.00

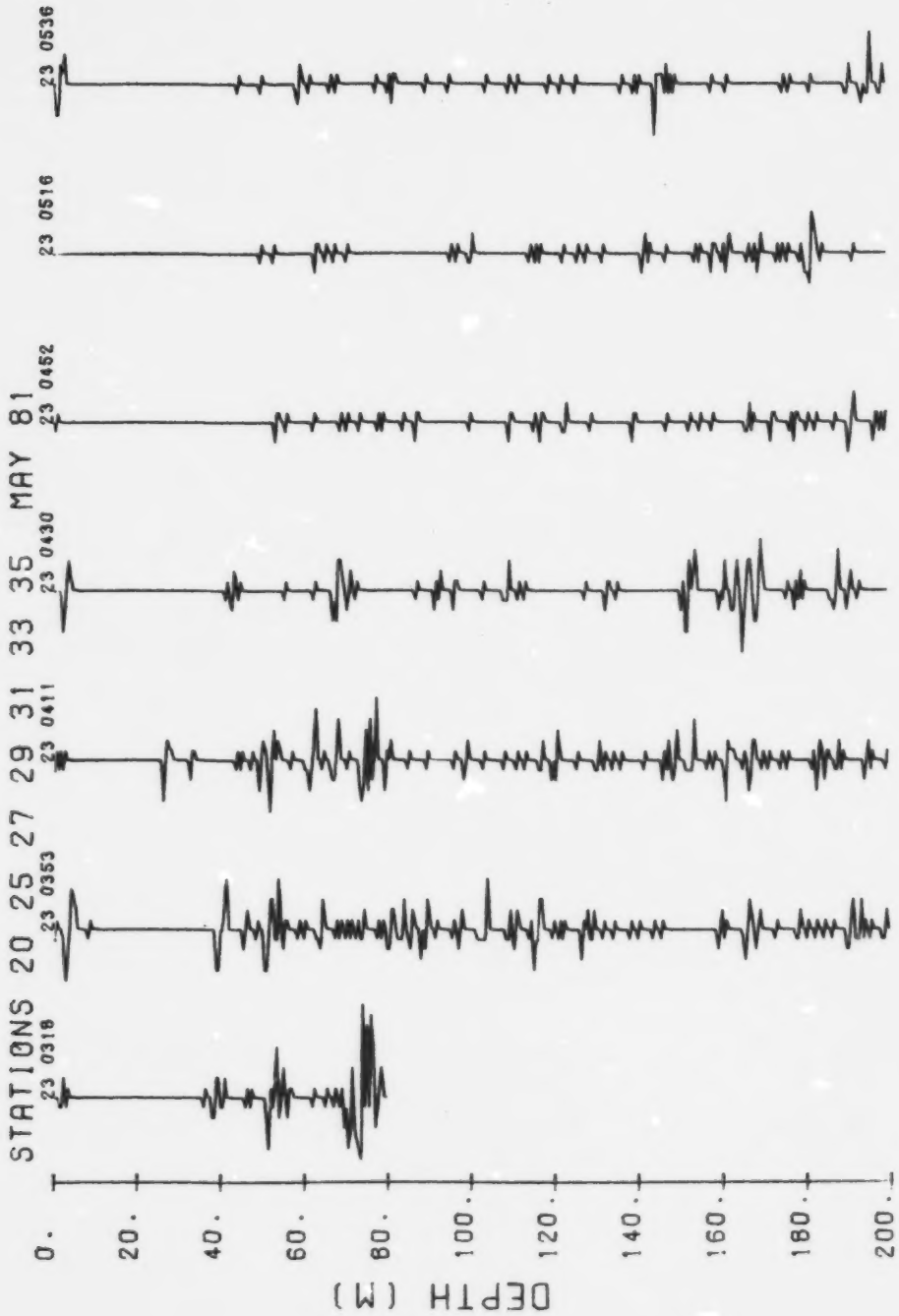

STNS 20 25 27 29 31 33 35 OBS INL - ALICE ARM
SIGMA T 21/5/81
LOG10 DEPTH (M)
1.
5.
10.
50.
100.
500.
1843
1809
1741
1713
1644
1613
1246
⊓ = 1 UNIT += 20.00


STNS 20 25 27 29 31 33 35 OBS INL - ALICE ARM
TEMP DEG C 21/5/81
1246
1613
1644
1713
1741
1809
1843
DEPTH (M)
1.
50.
100.
150.
200.
250.
300.
350.
400.
450.
500.
550.
600.
= 1 UNIT += 8.00

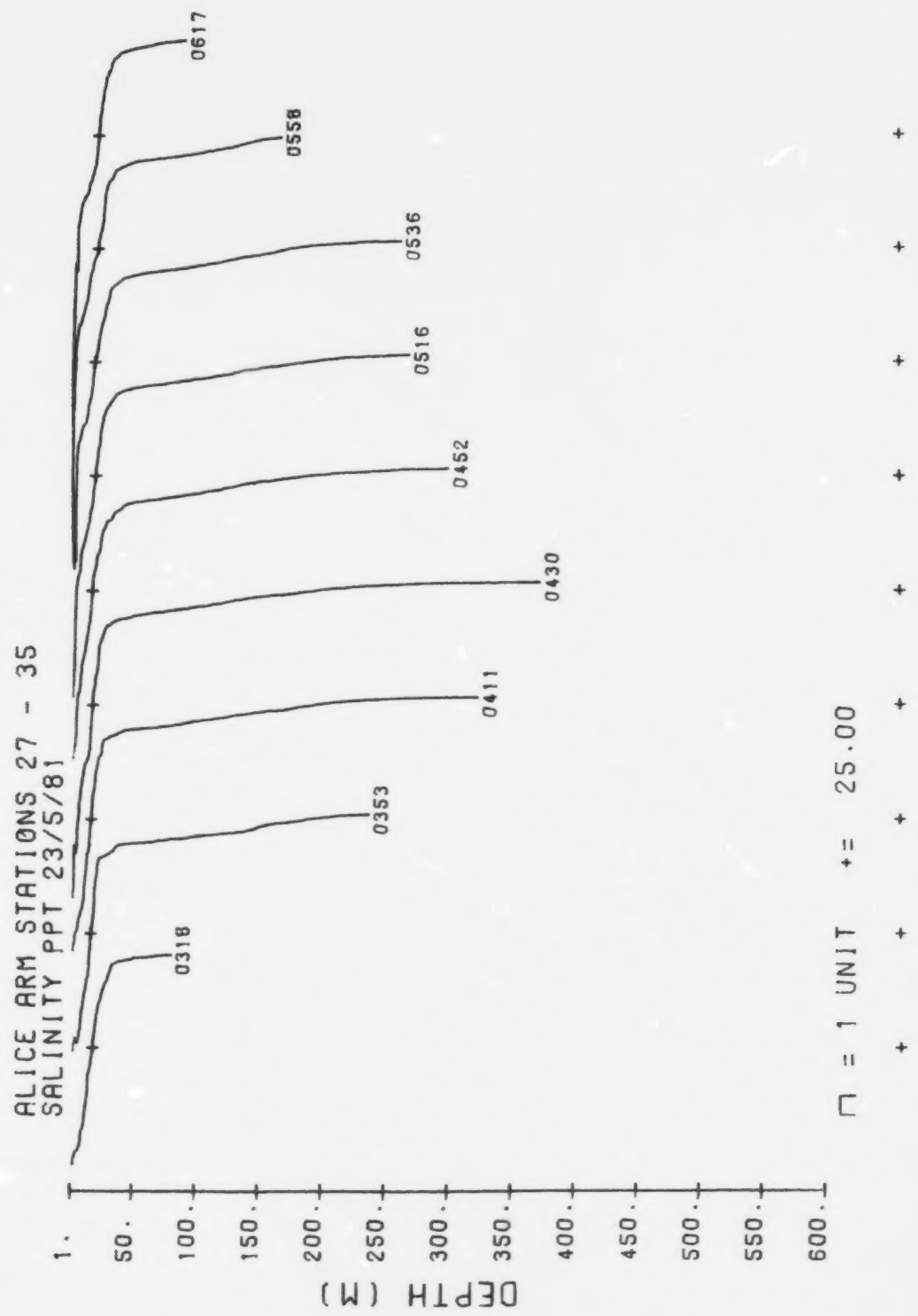

STNS 20 25 27 29 31 33 35 OBS INL - ALICE ARM
TEMP DEG C 21/5/81
LOG10 DEPTH (M)
1.
5.
10.
50.
100.
500.
1246
1613
1644
1713
1741
1809
1843
= 1 UNIT
+= 8.00

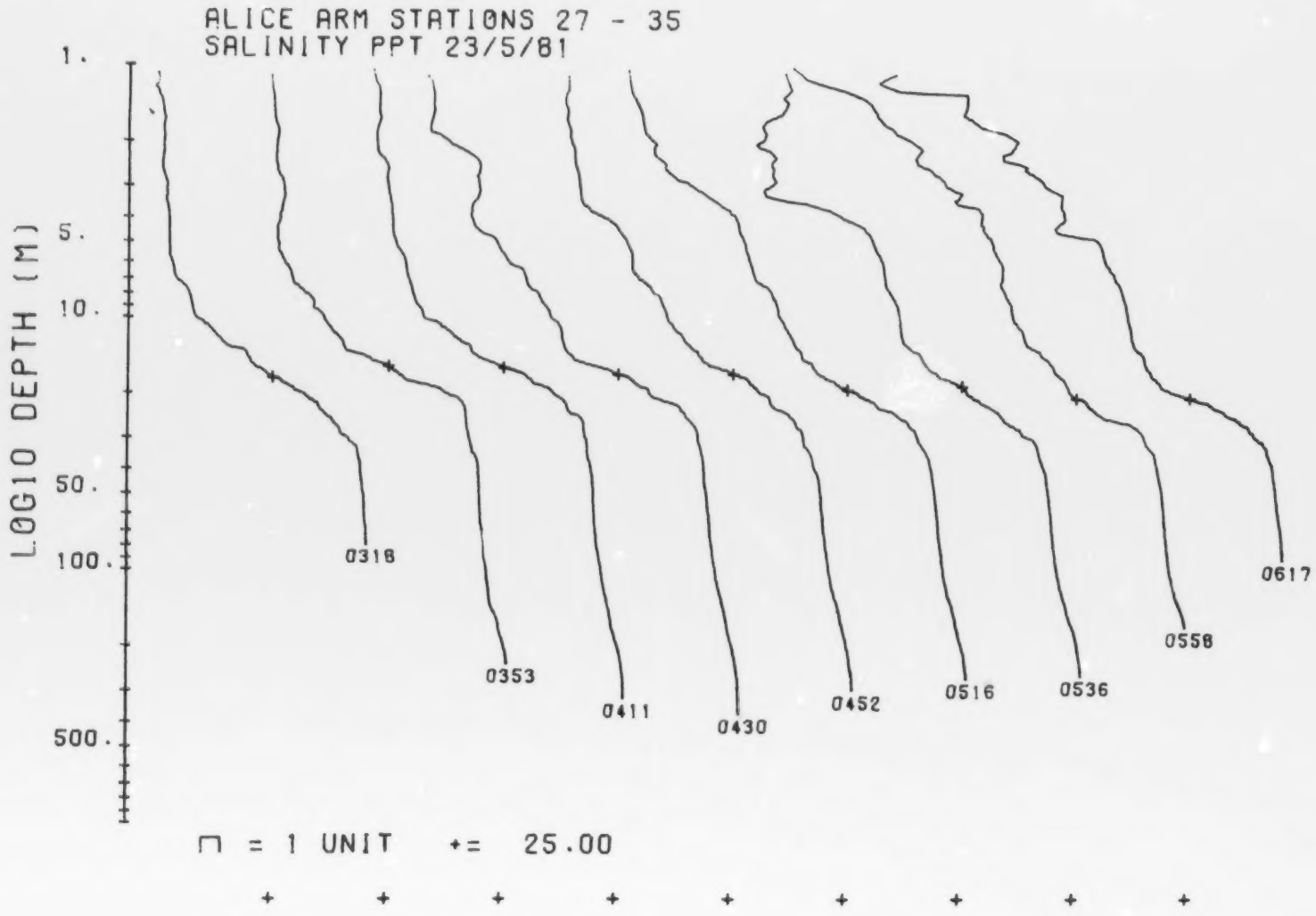

TIDE (METRES)
7.
6.
5.
4.
3.
2.
1.
0.
1250
1310
1330
1350
1410
1430
1450
1510
1530
1550
1610
1630
1650
1710
1730
1750
1810
1830
TIME (HHMM)


OBS. INLET - ALICE ARM 21/5/81
SIGMA-T
25
26
27
29
31
33
35
13.00
16.00
17.00
18.00
19.00
21.00
22.00
23.00
5.
10.
20.
30.
40.
50.
60.
70.
80.
90.
100.
DEPTH (M)
1250
1310
1330
1350
1410
1430
1450
1510
1530
1550
1610
1630
1650
1710
1730
1750
1810
1830
TIME (HHMM)

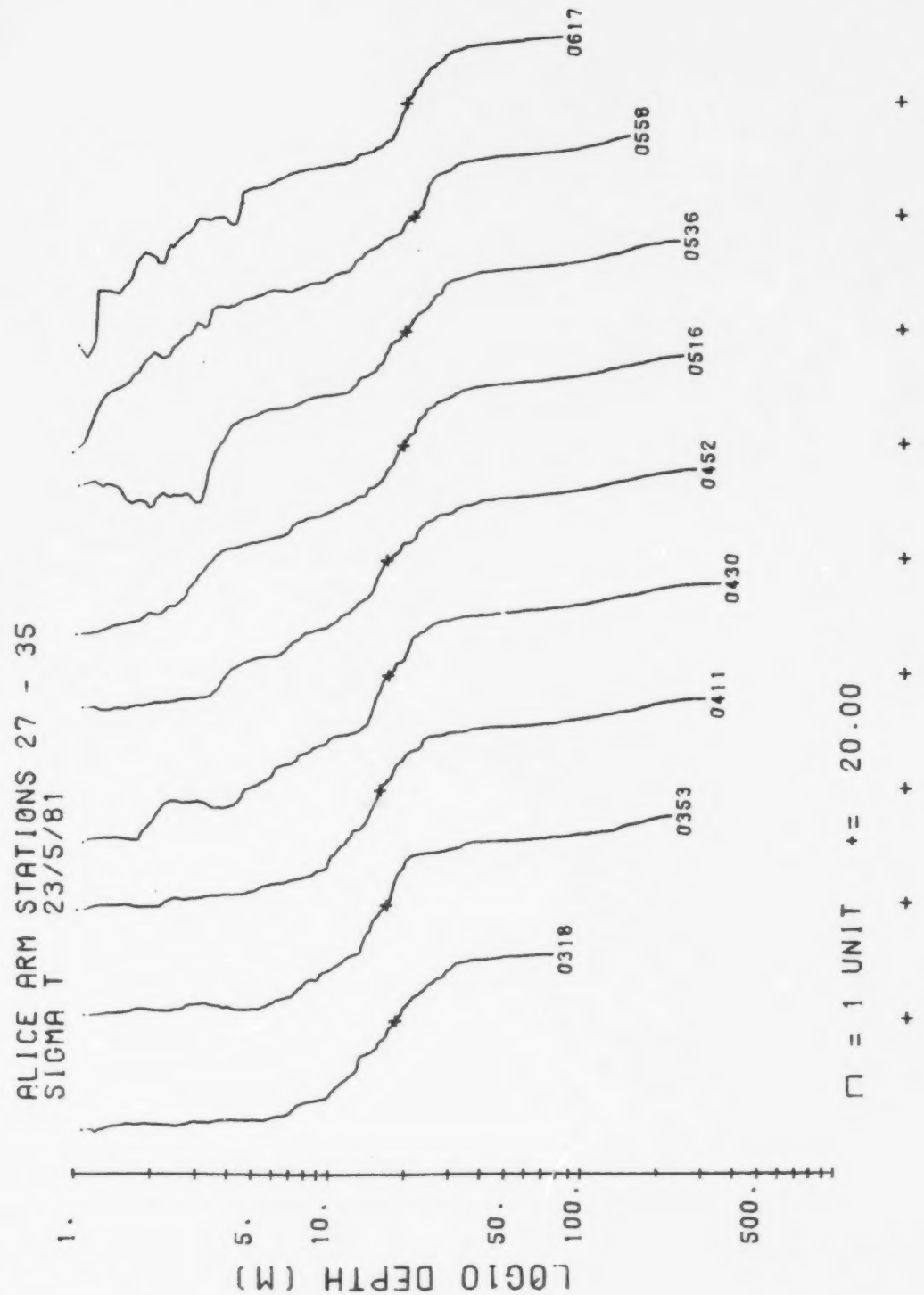

STATIONS 20 25 27 29 31 33 35 MAY 81
23 0318
23 0353
23 0411
23 0430
23 0452
23 0516
23 0536
0.
20.
40.
60.
80.
100.
120.
140.
160.
180.
200.
DEPTH (M)
8.00 M
DISPLACEMENT

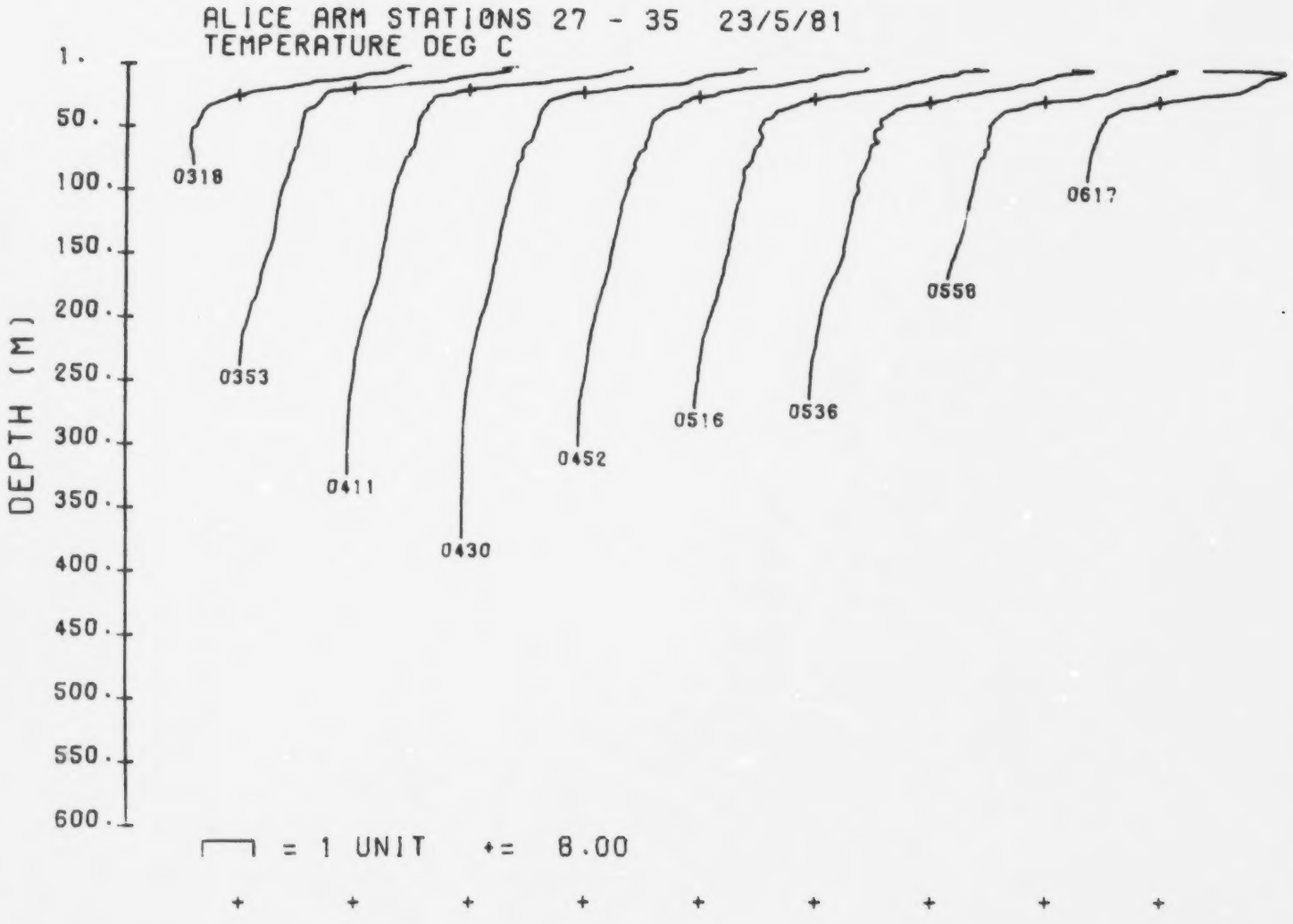
SET C: ALICE ARM - ALONG CHANNEL 23/5/81

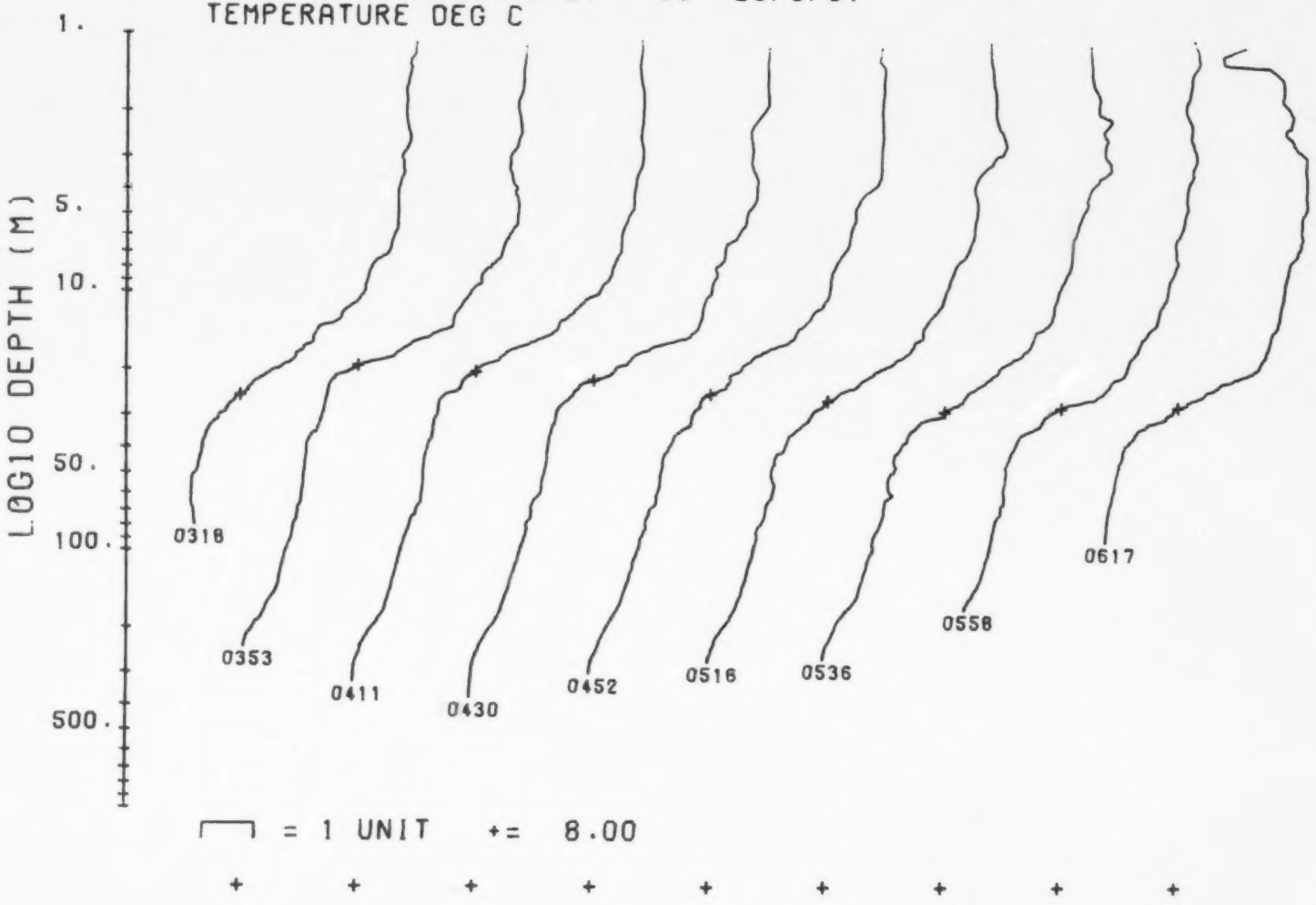

ALICE ARM STATIONS 27 - 35
SALINITY PPT 23/5/81
0318
0353
0411
0430
0452
0516
0536
0558
0617
DEPTH (M)
1.
50.
100.
150.
200.
250.
300.
350.
400.
450.
500.
550.
600.
□ = 1 UNIT +=
25.00

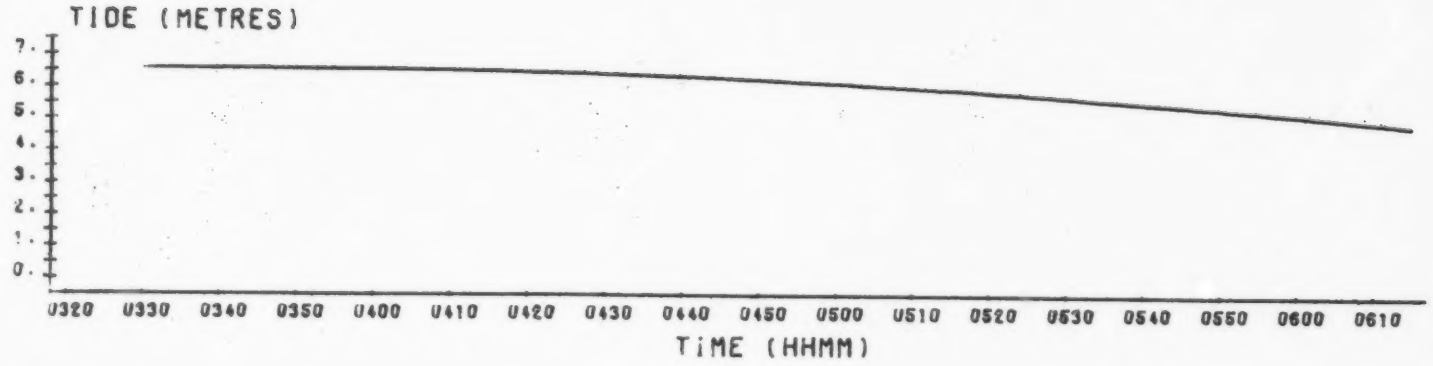

ALICE ARM STATIONS 27 - 35
SALINITY PPT 23/5/81
LOG10 DEPTH (M)
1.
5.
10.
50.
100.
500.
0318
0353
0411
0430
0452
0516
0536
0558
0617
□ = 1 UNIT
+= 25.00

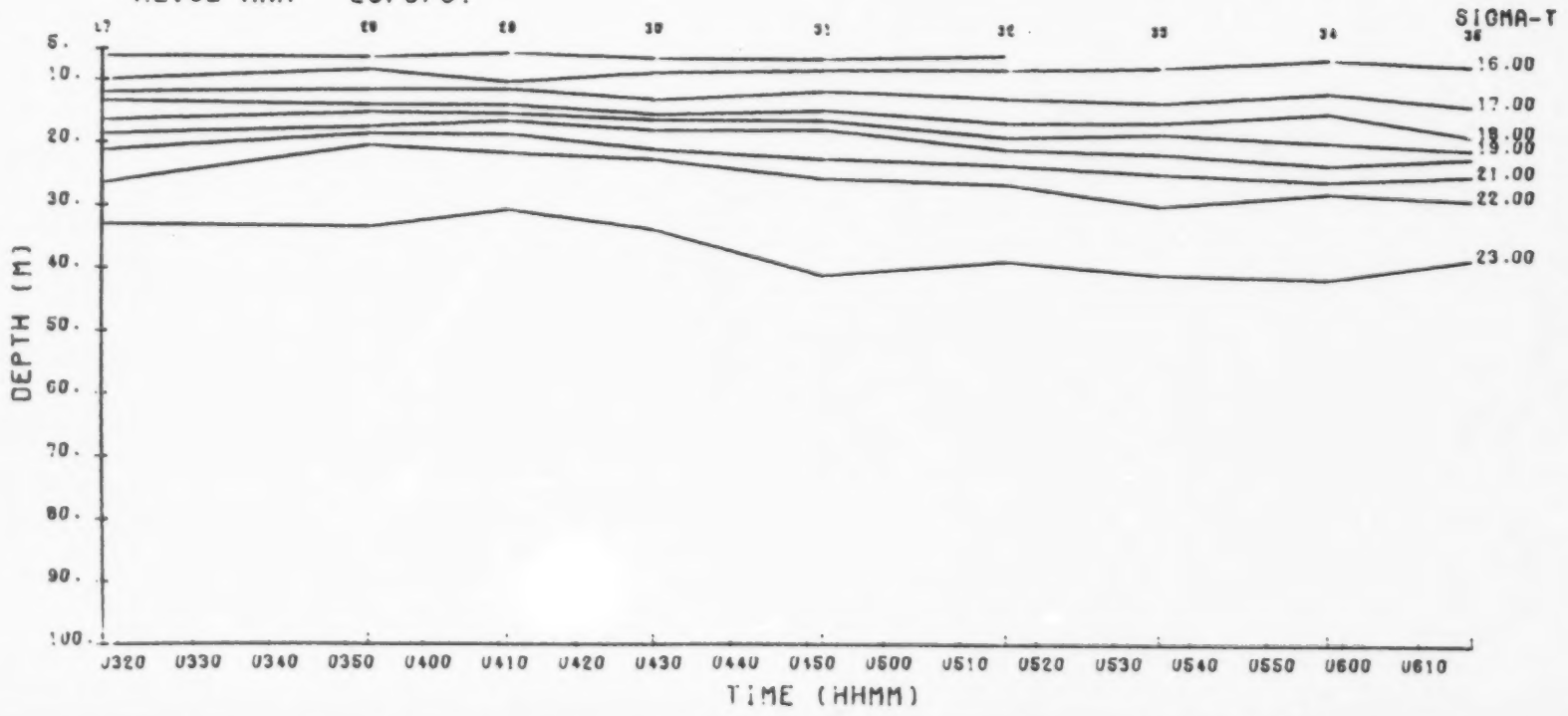
ALICE ARM STATIONS 27 - 35
SIGMA T 23/5/81
DEPTH (M)
1.
50.
100.
150.
200.
250.
300.
350.
400.
450.
500.
550.
600.
0318
0353
0411
0430
0452
0516
0536
0558
0617
□ = 1 UNIT += 20.00

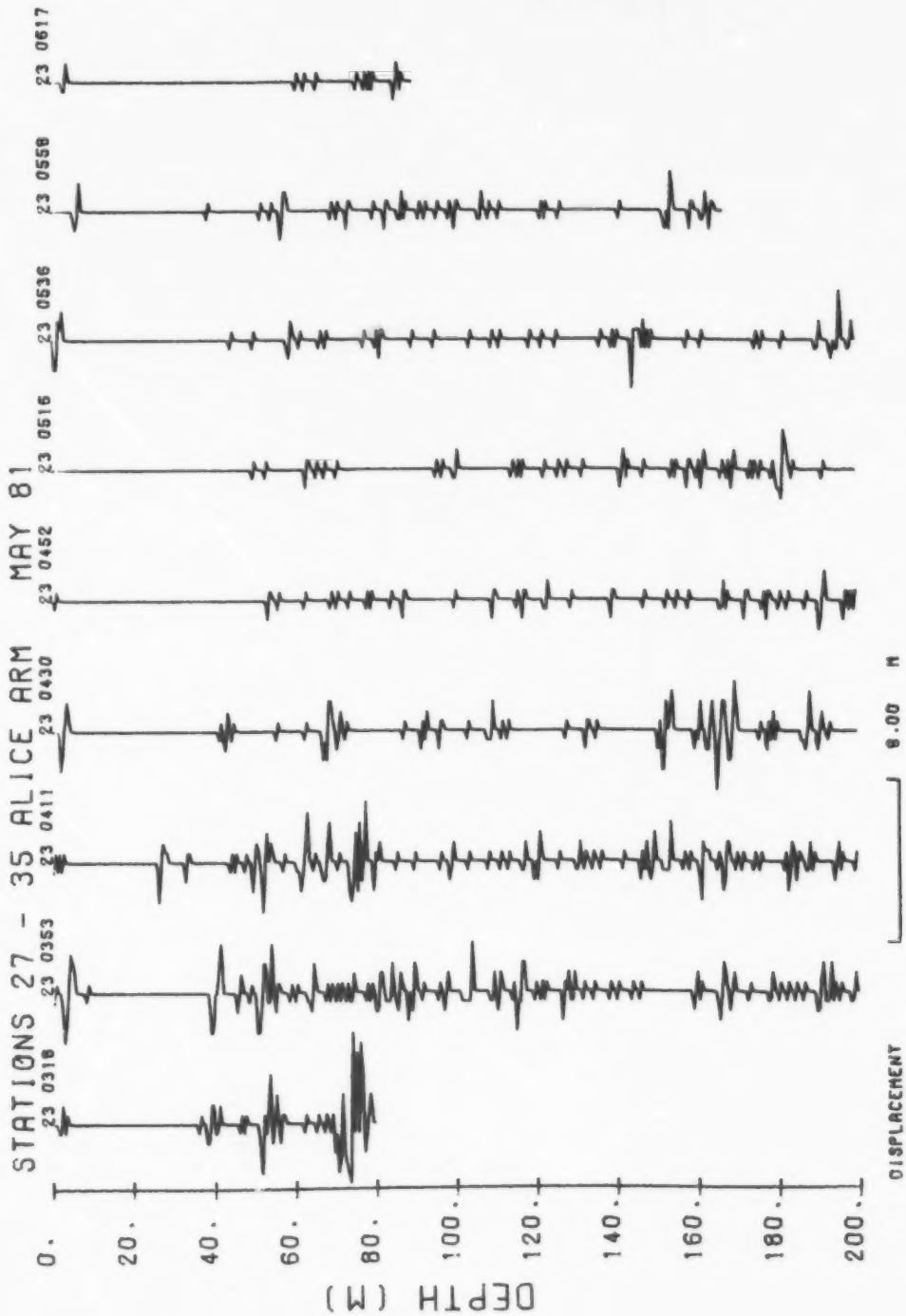

ALICE ARM STATIONS 27 - 35
SIGMA T 23/5/81
LOG10 DEPTH (M)
1.
5.
10.
50.
100.
500.
0318
0353
0411
0430
0452
0516
0536
0558
0617
⊓ = 1 UNIT += 20.00


ALICE ARM STATIONS 27 - 35 23/5/81
TEMPERATURE DEG C
DEPTH (M)
1.
50.
100.
150.
200.
250.
300.
350.
400.
450.
500.
550.
600.
0318
0353
0411
0430
0452
0516
0536
0558
0617
= 1 UNIT
+= 8.00

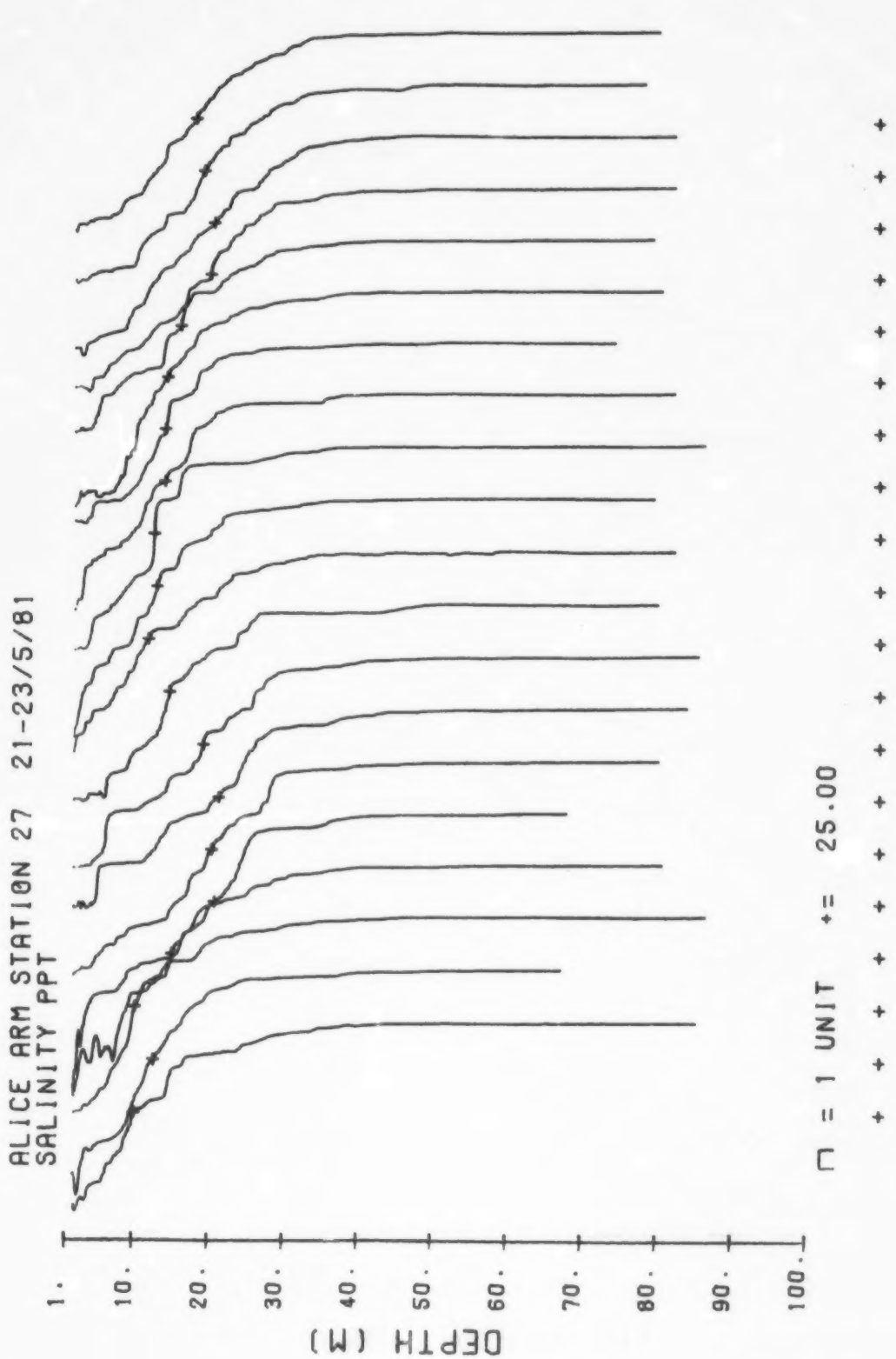

ALICE ARM STATIONS 27 - 35 23/5/81
TEMPERATURE DEG C
LOG10 DEPTH (M)
1.
5.
10.
50.
100.
500.
0318
0353
0411
0430
0452
0516
0536
0558
0617
= 1 UNIT
+= 8.00

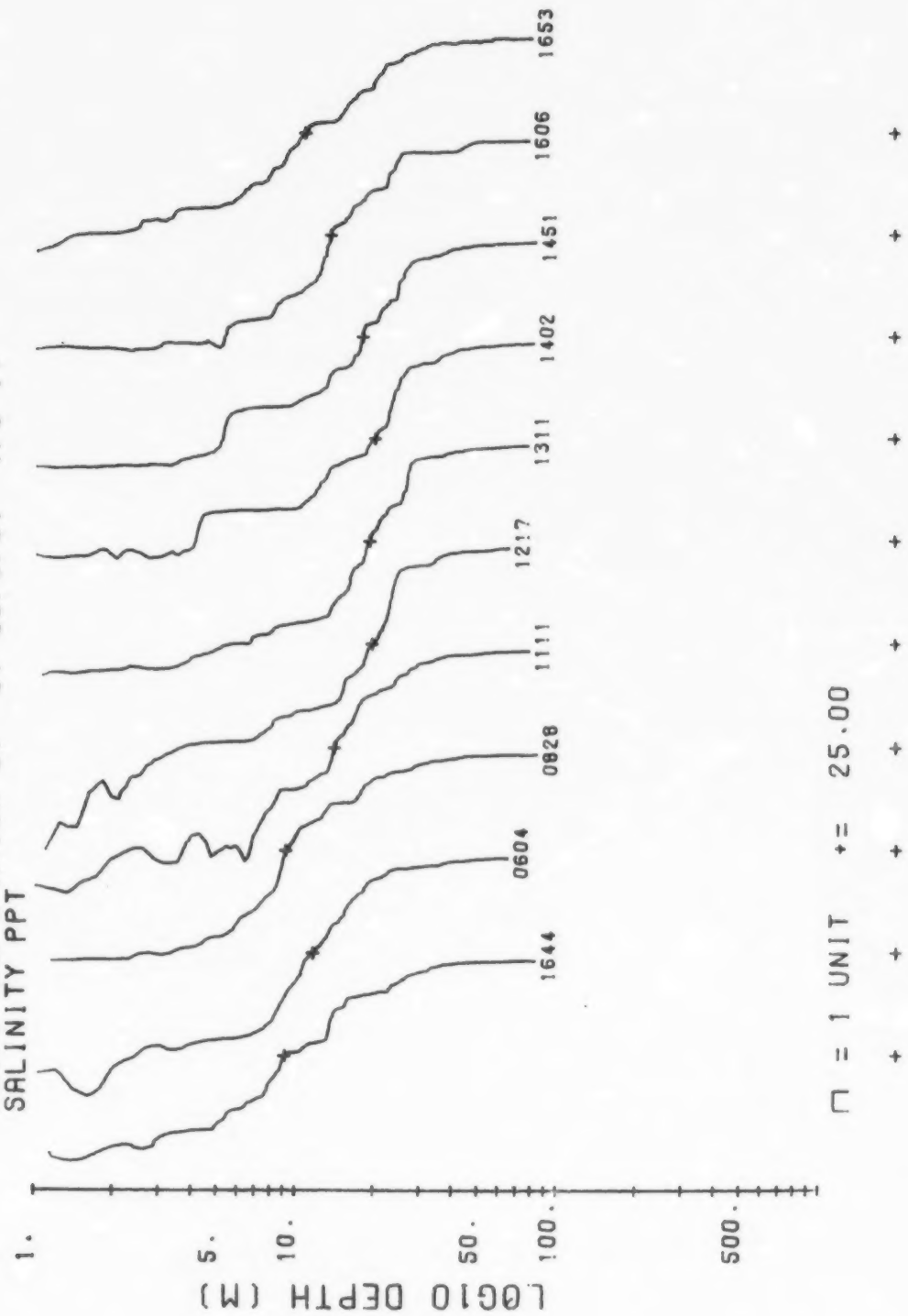

TIDE (METRES)
7.
6.
5.
4.
3.
2.
1.
0.
0320 0330 0340 0350 0400 0410 0420 0430 0440 0450 0500 0510 0520 0530 0540 0550 0600 0610
TIME (HHMM)

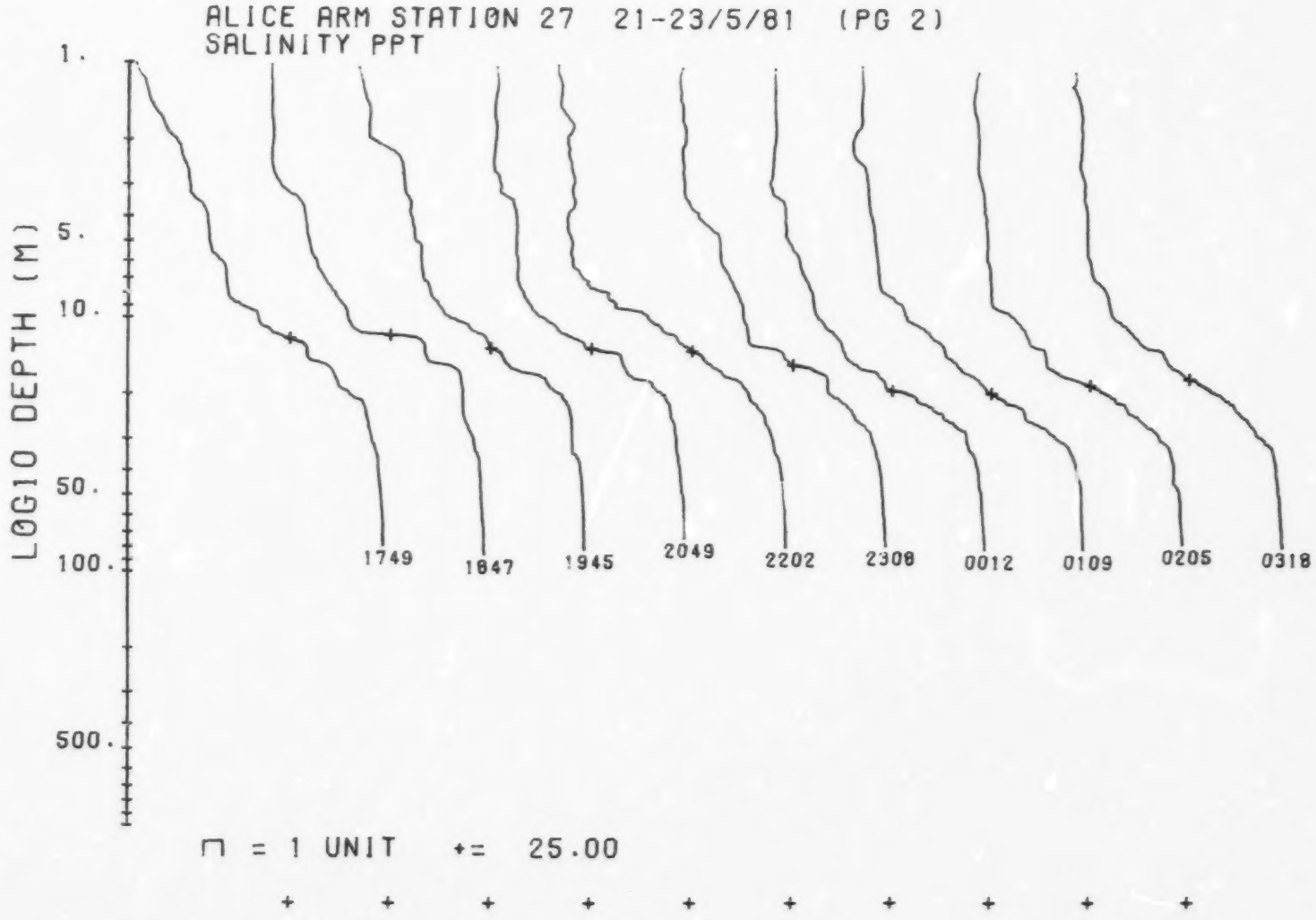

ALICE ARM 23/5/81
SIGMA-T
16.00
17.00
18.00
19.00
21.00
22.00
23.00
DEPTH (M)
5.
10.
20.
30.
40.
50.
60.
70.
80.
90.
100.
0320 0330 0340 0350 0400 0410 0420 0430 0440 0450 0500 0510 0520 0530 0540 0550 0600 0610
TIME (HHMM)

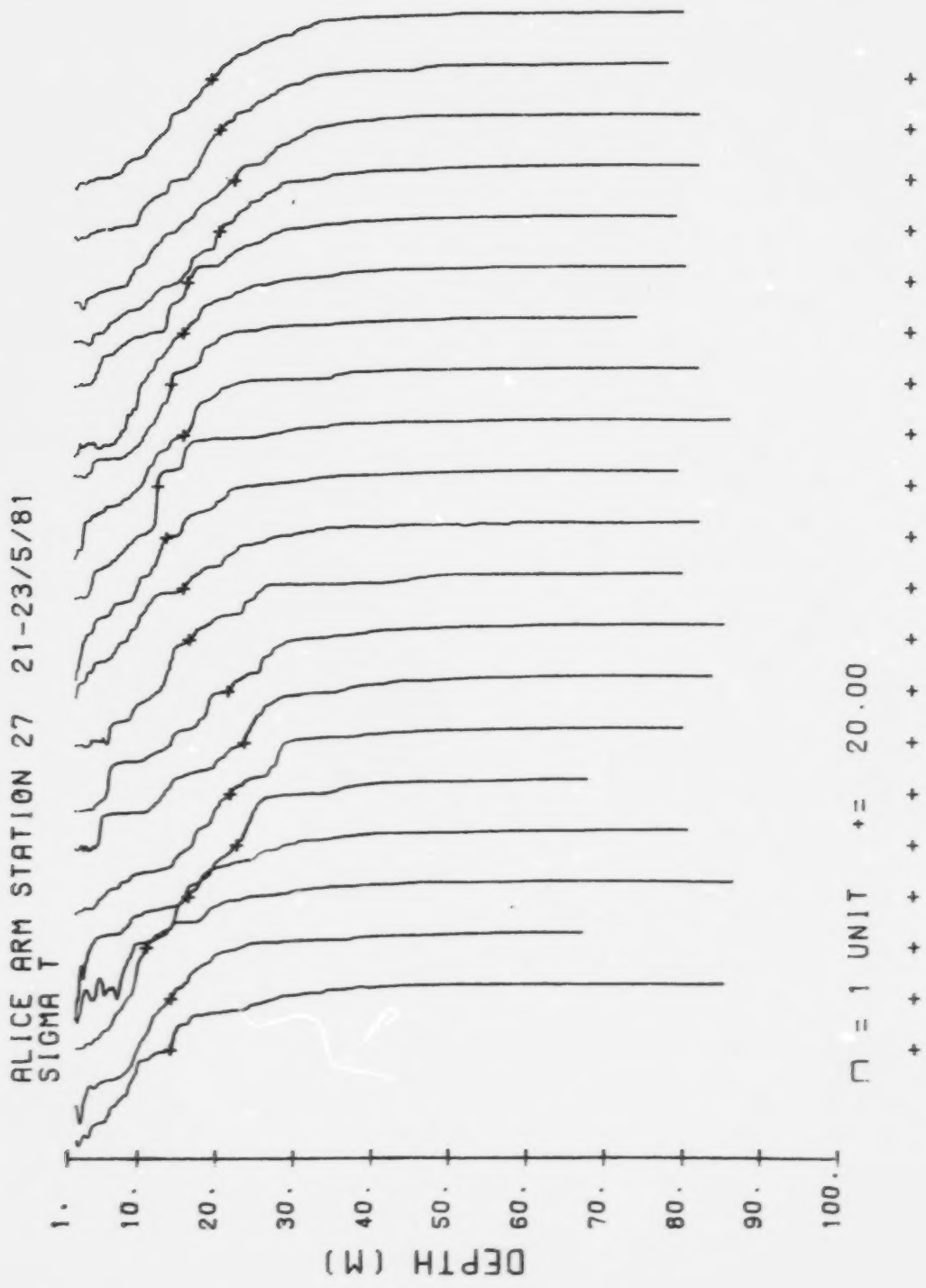

STATIONS 27 - 35 ALICE ARM MAY 81
23 0318
23 0353
23 0411
23 0430
23 0452
23 0516
23 0536
23 0558
23 0617
0.
20.
40.
60.
80.
100.
120.
140.
160.
180.
200.
DEPTH (M)
8.00 M
DISPLACEMENT

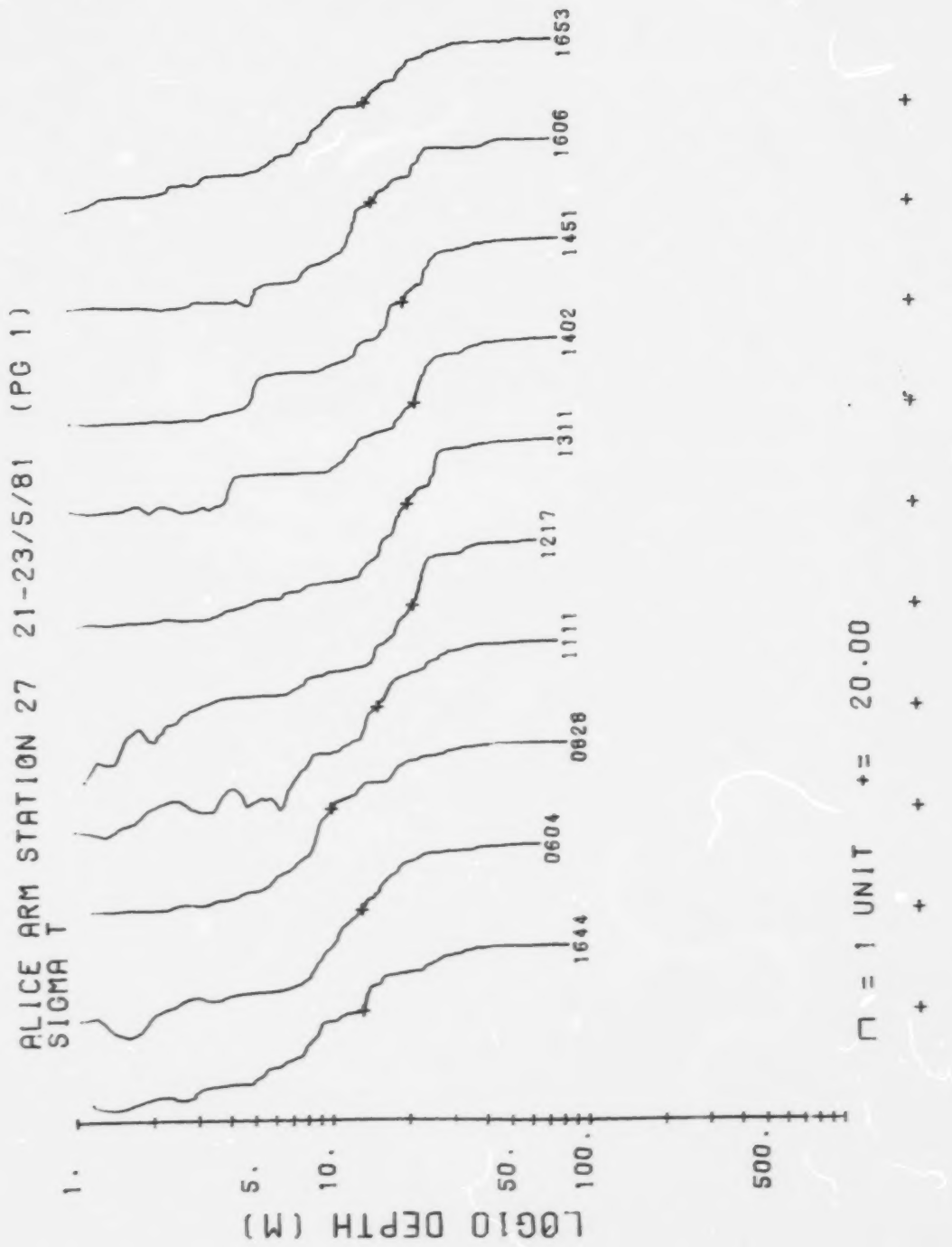
SET D: STATION 27 21-23/5/81

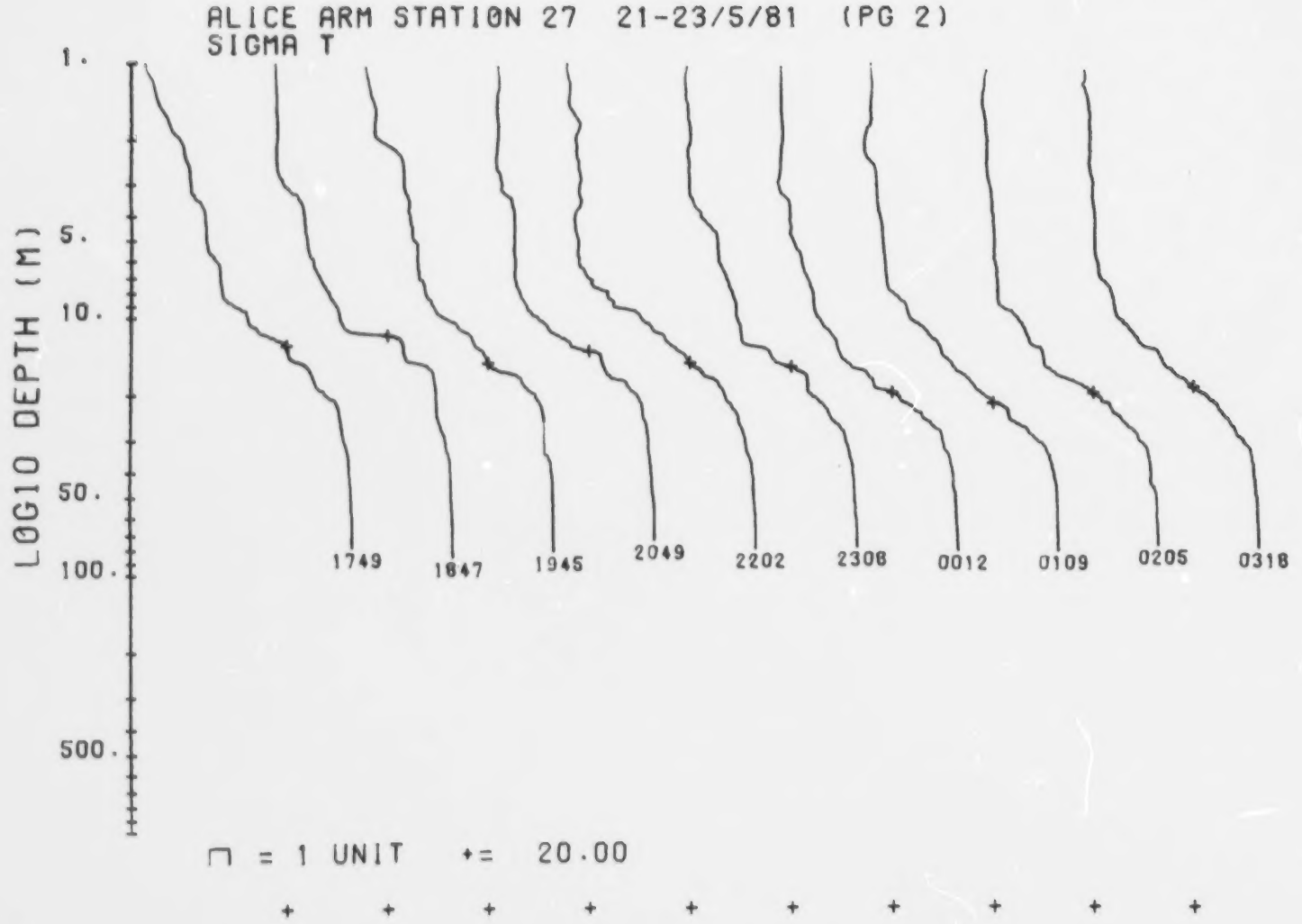

ALICE ARM STATION 27 21-23/5/81
SALINITY PPT
DEPTH (M)
1.
10.
20.
30.
40.
50.
60.
70.
80.
90.
100.
□ = 1 UNIT += 25.00

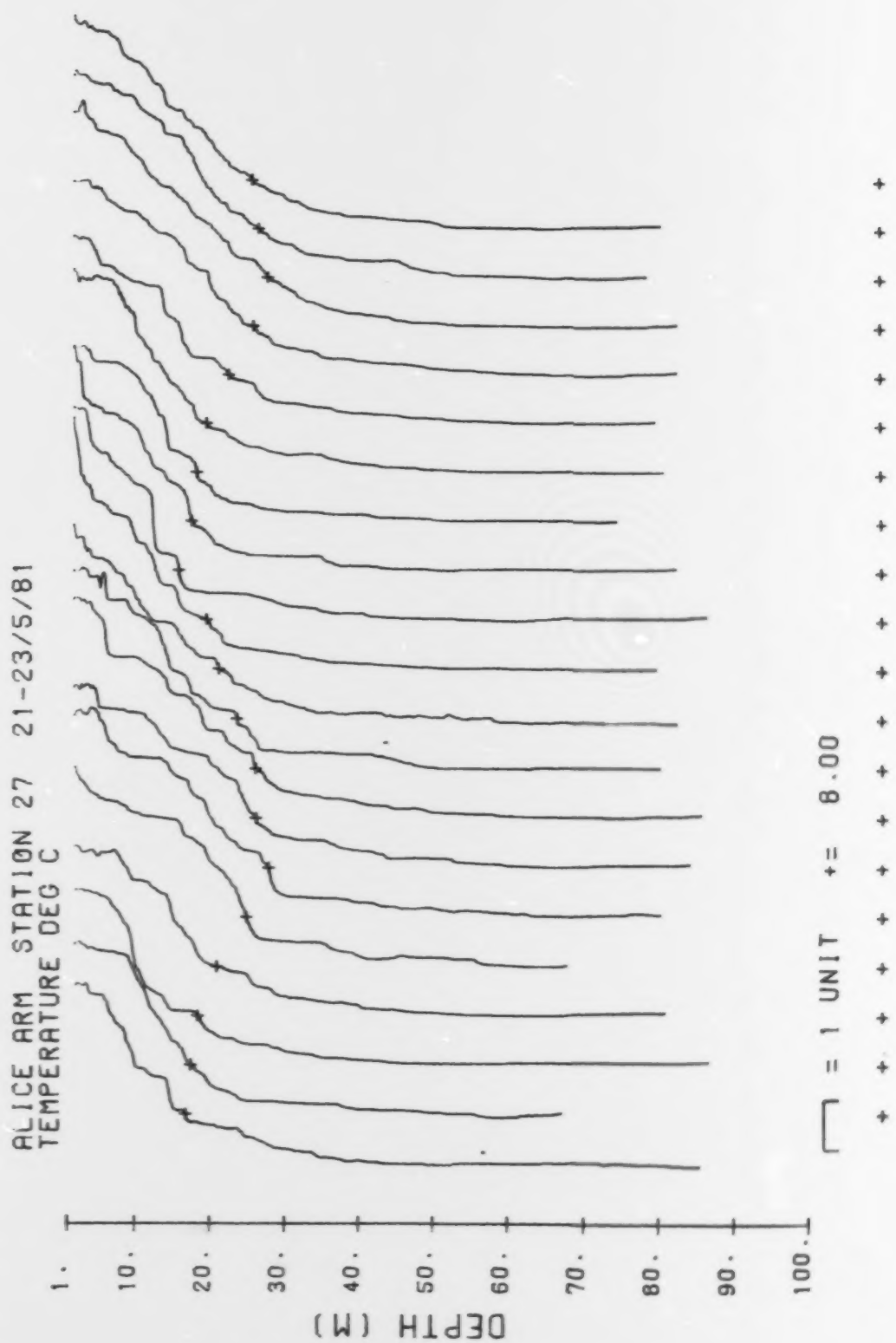

ALICE ARM STATION 27 21-23/5/81 (PG 1)
SALINITY PPT
LOG10 DEPTH (M)
1.
5.
10.
50.
100.
500.
1644
0604
0828
1111
1217
1311
1402
1451
1606
1653
⊓ = 1 UNIT += 25.00

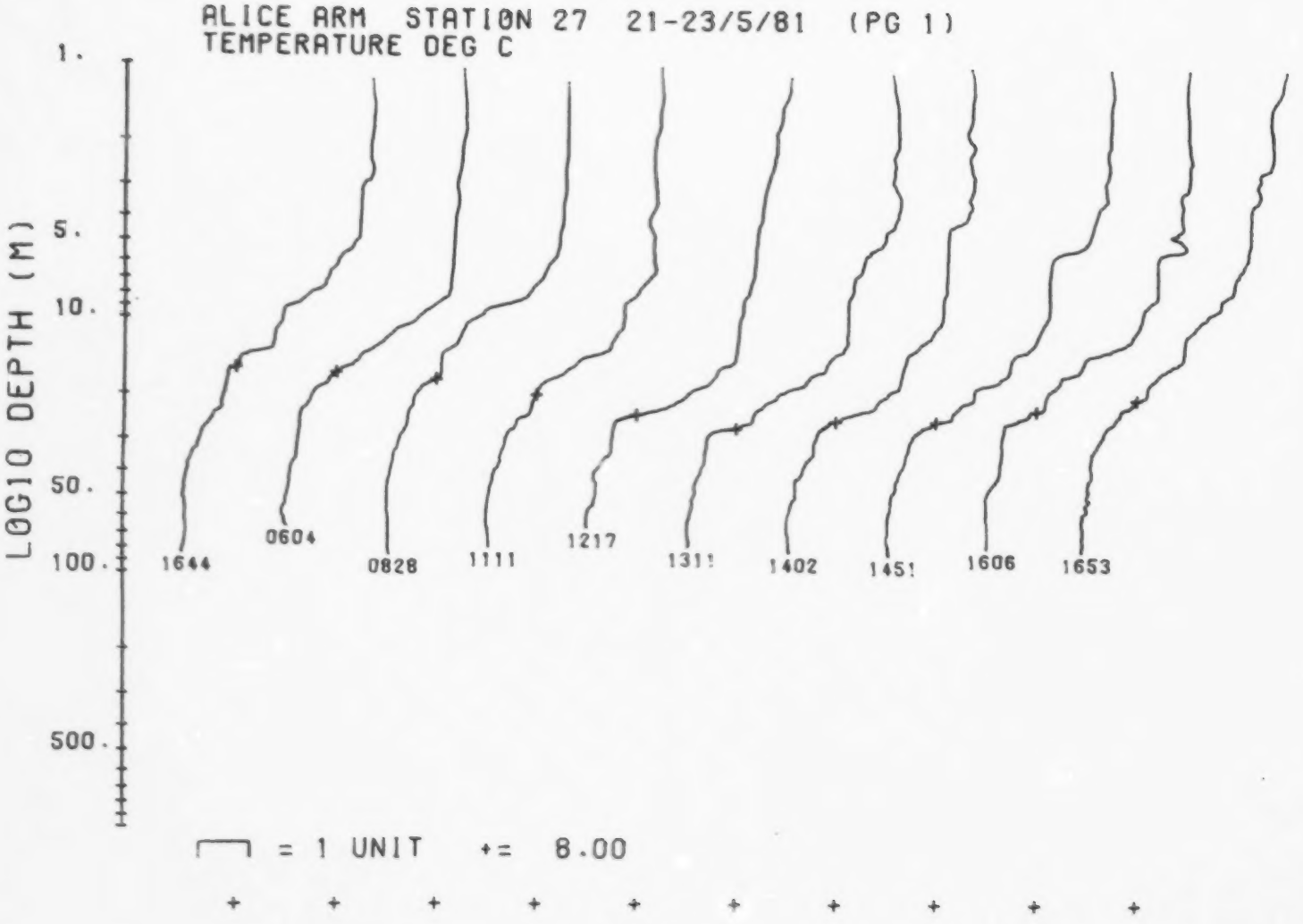

ALICE ARM STATION 27 21-23/5/81 (PG 2)
SALINITY PPT
LOG10 DEPTH (M)
1.
5.
10.
50.
100.
500.
1749
1847
1945
2049
2202
2308
0012
0109
0205
0318
⊓ = 1 UNIT += 25.00

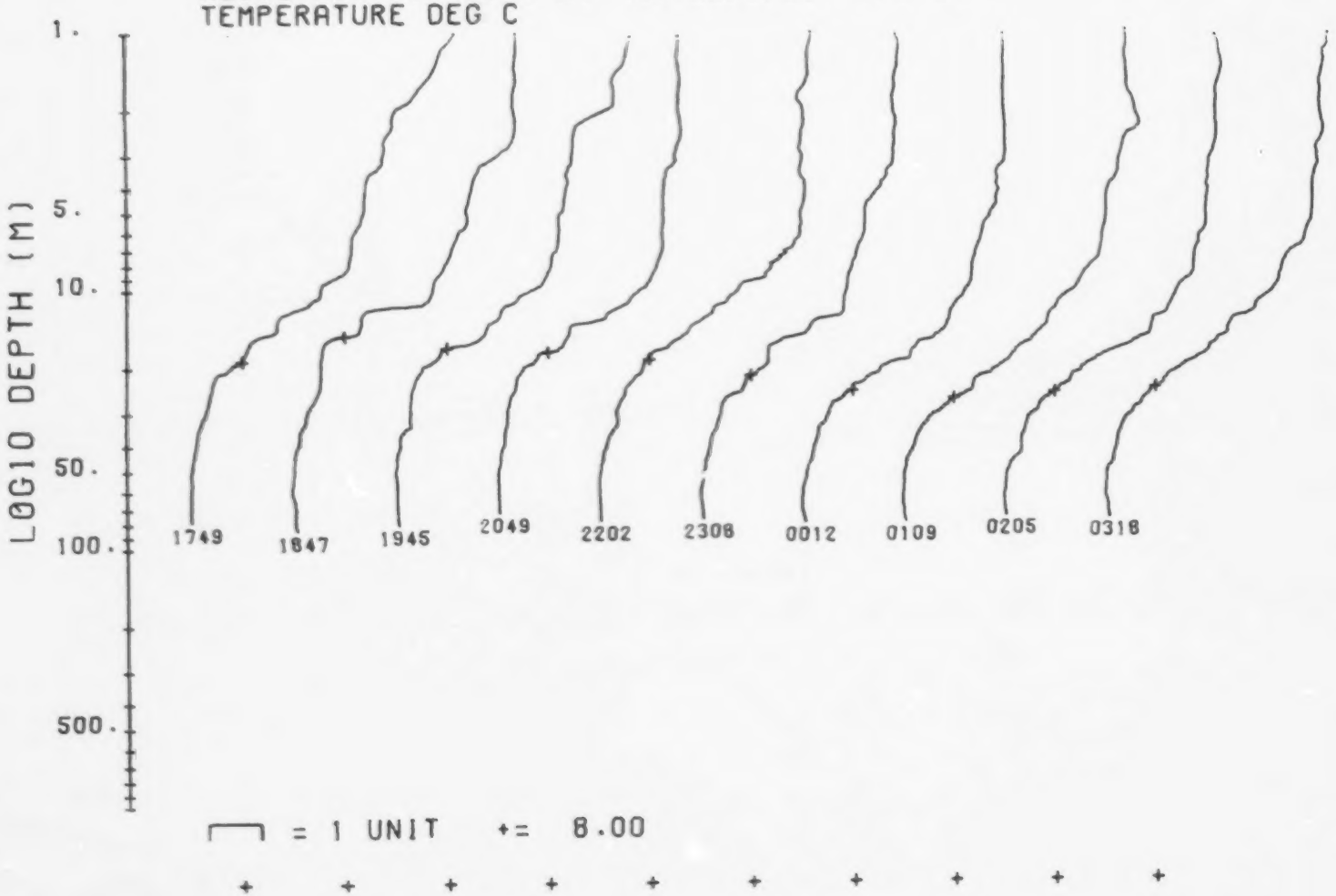

ALICE ARM STATION 27 21-23/5/81
SIGMA T
DEPTH (M)
1.
10.
20.
30.
40.
50.
60.
70.
80.
90.
100.
⊓ = 1 UNIT += 20.00

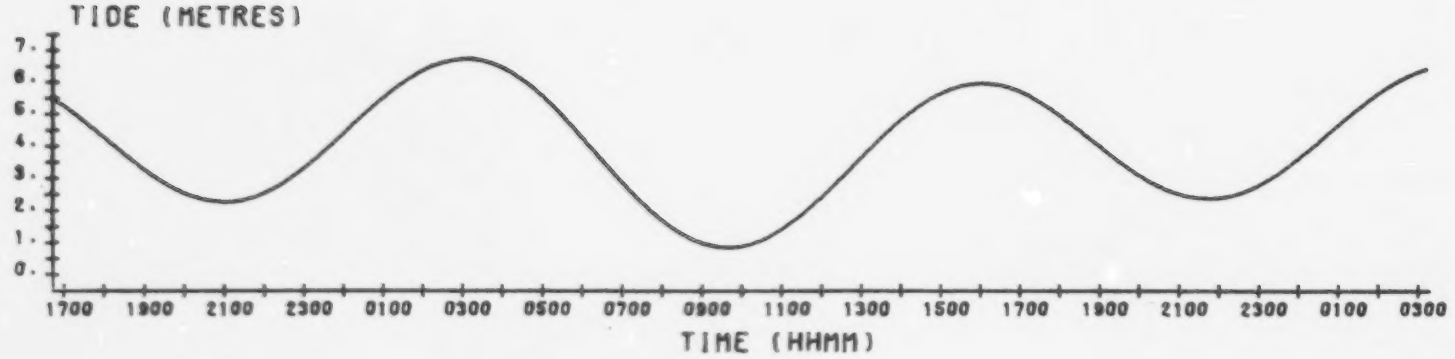

ALICE ARM STATION 27 21-23/5/81 (PG 1)
SIGMA T
1644
0604
0828
1111
1217
1311
1402
1451
1606
1653
1.
5.
10.
50.
100.
500.
LOG10 DEPTH (M)
Π = 1 UNIT += 20.00

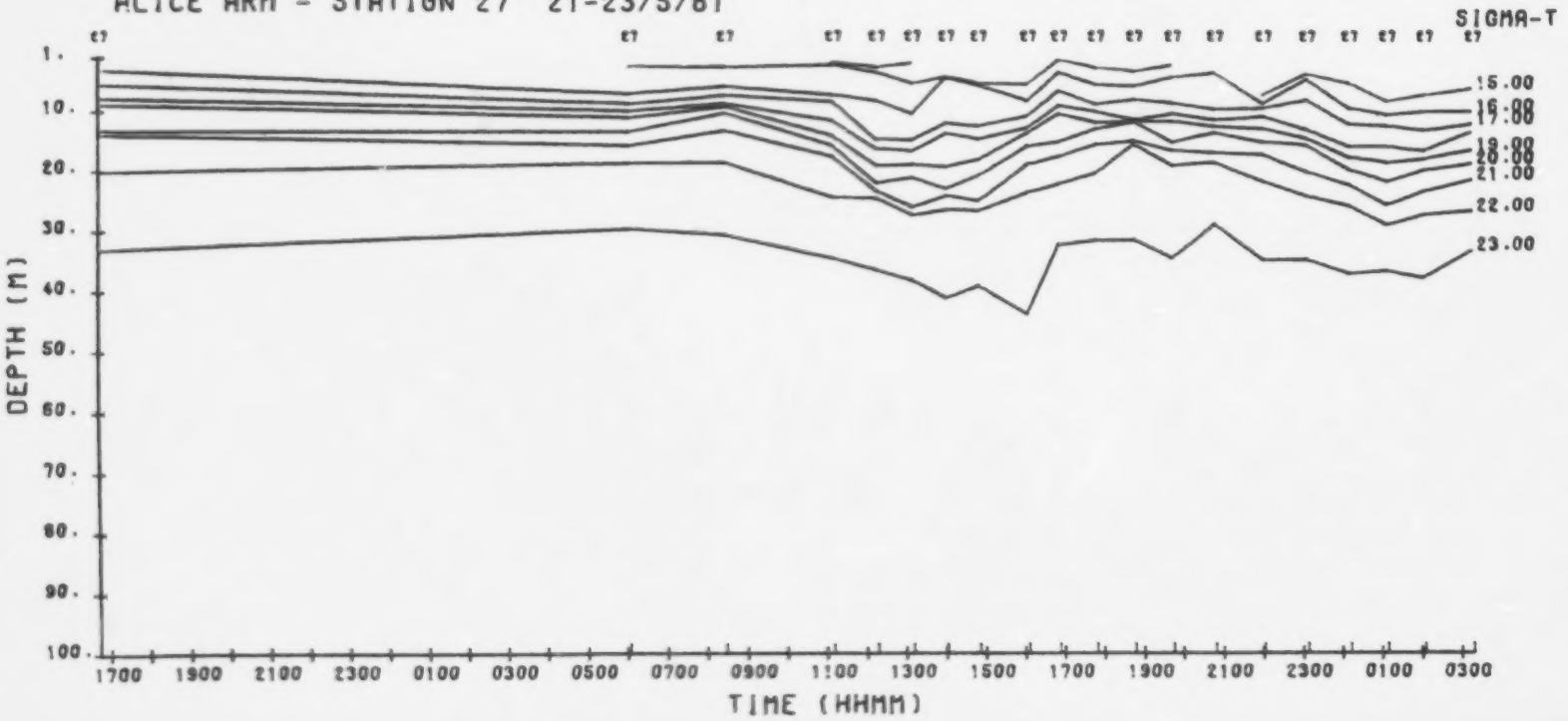

ALICE ARM STATION 27 21-23/5/81 (PG 2)
SIGMA T
LOG10 DEPTH (M)
1.
5.
10.
50.
100.
500.
1749
1847
1945
2049
2202
2306
0012
0109
0205
0318
□ = 1 UNIT + = 20.00

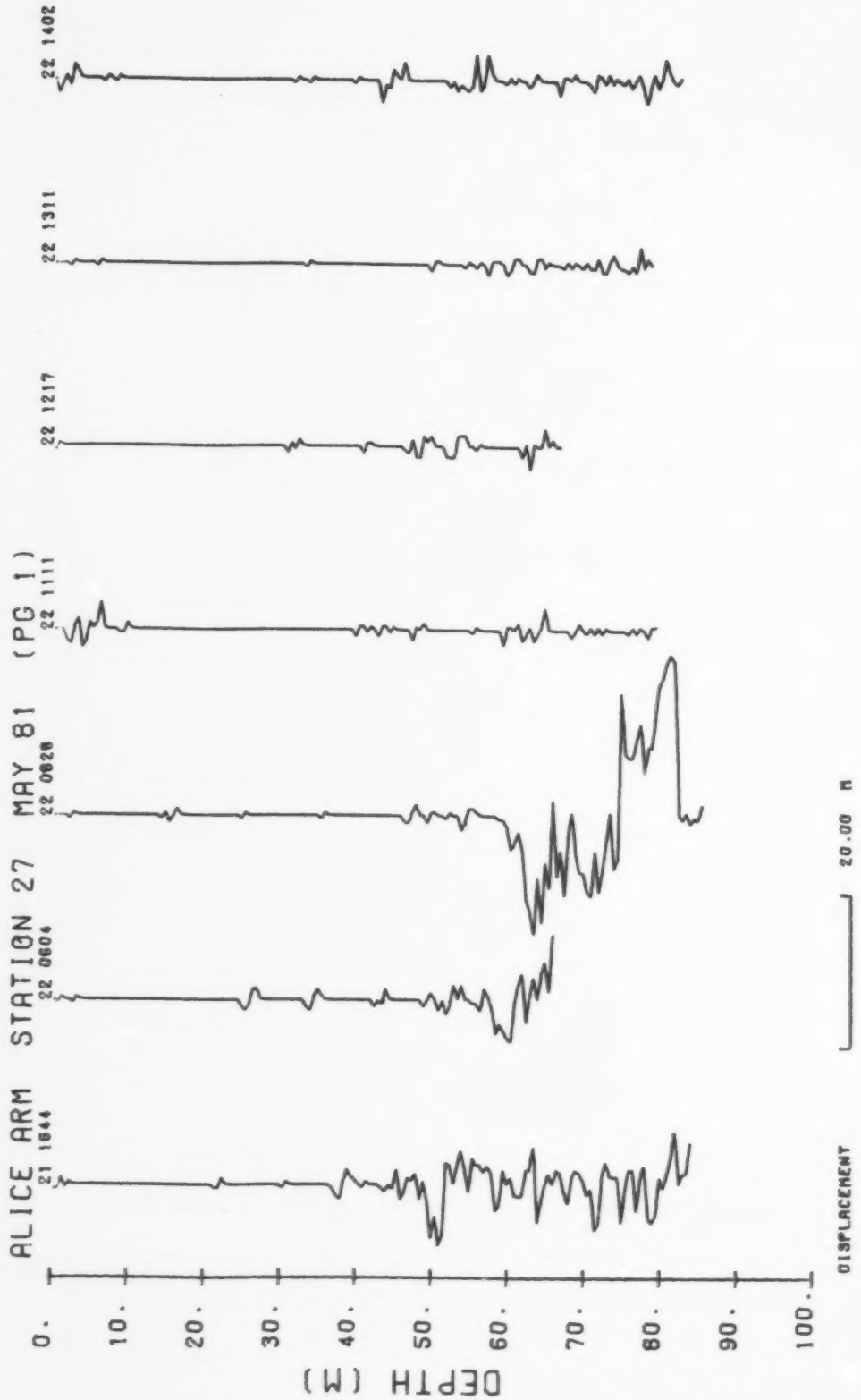

ALICE ARM STATION 27 21-23/5/81
TEMPERATURE DEG C
DEPTH (M)
1.
10.
20.
30.
40.
50.
60.
70.
80.
90.
100.
= 1 UNIT += 8.00

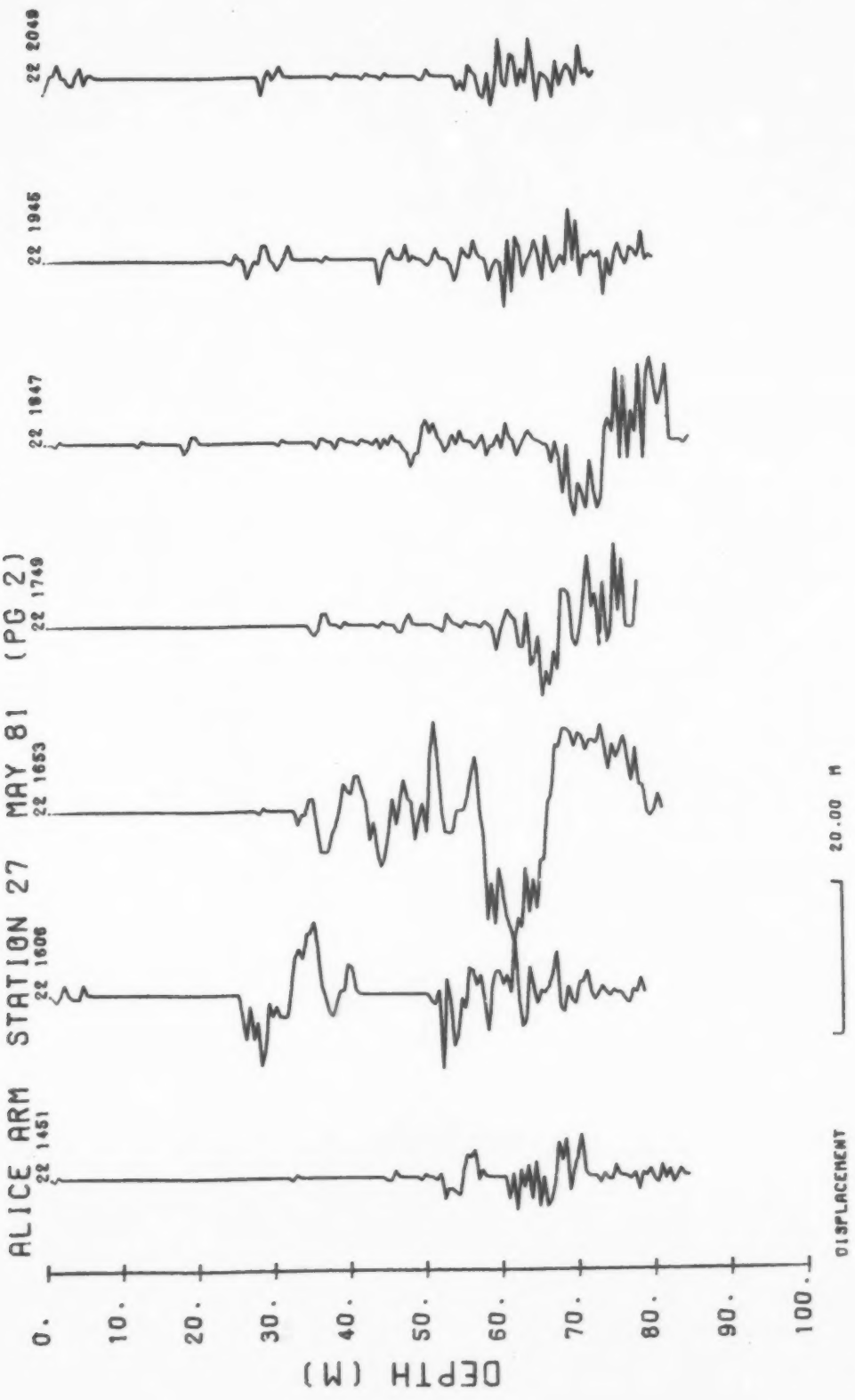

ALICE ARM STATION 27 21-23/5/81 (PG 1)
TEMPERATURE DEG C
LOG10 DEPTH (M)
1.
5.
10.
50.
100.
500.
1644
0604
0828
1111
1217
1311
1402
1451
1606
1653
= 1 UNIT += 8.00

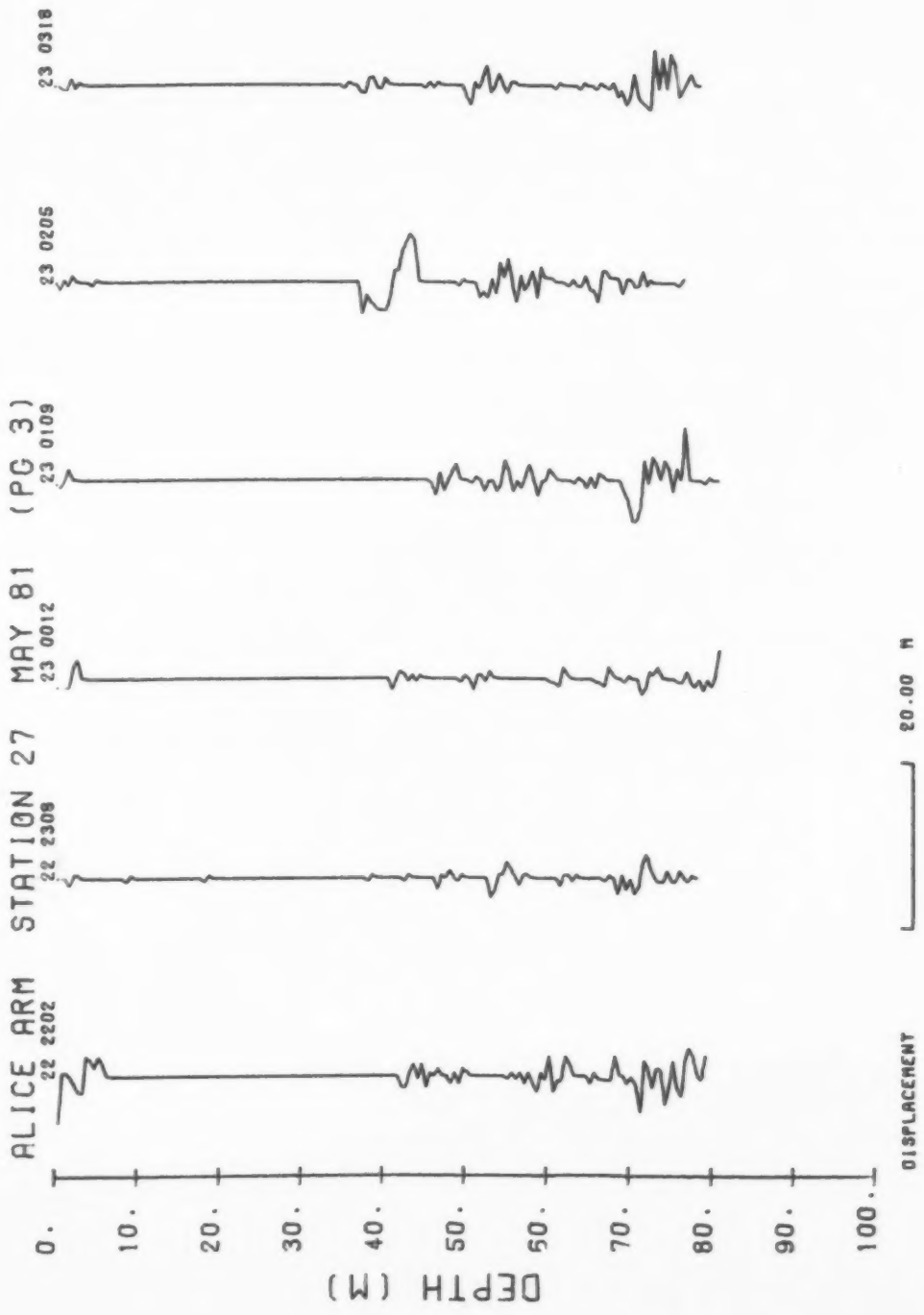

ALICE ARM STATION 27 21-23/5/81 (PG 2)
TEMPERATURE DEG C
LOG10 DEPTH (M)
1.
5.
10.
50.
100.
500.
1749
1847
1945
2049
2202
2308
0012
0109
0205
0318
= 1 UNIT += 8.00


TIDE (METRES)
7.
6.
5.
4.
3.
2.
1.
0.
1700 1900 2100 2300 0100 0300 0500 0700 0900 1100 1300 1500 1700 1900 2100 2300 0100 0300
TIME (HHMM)

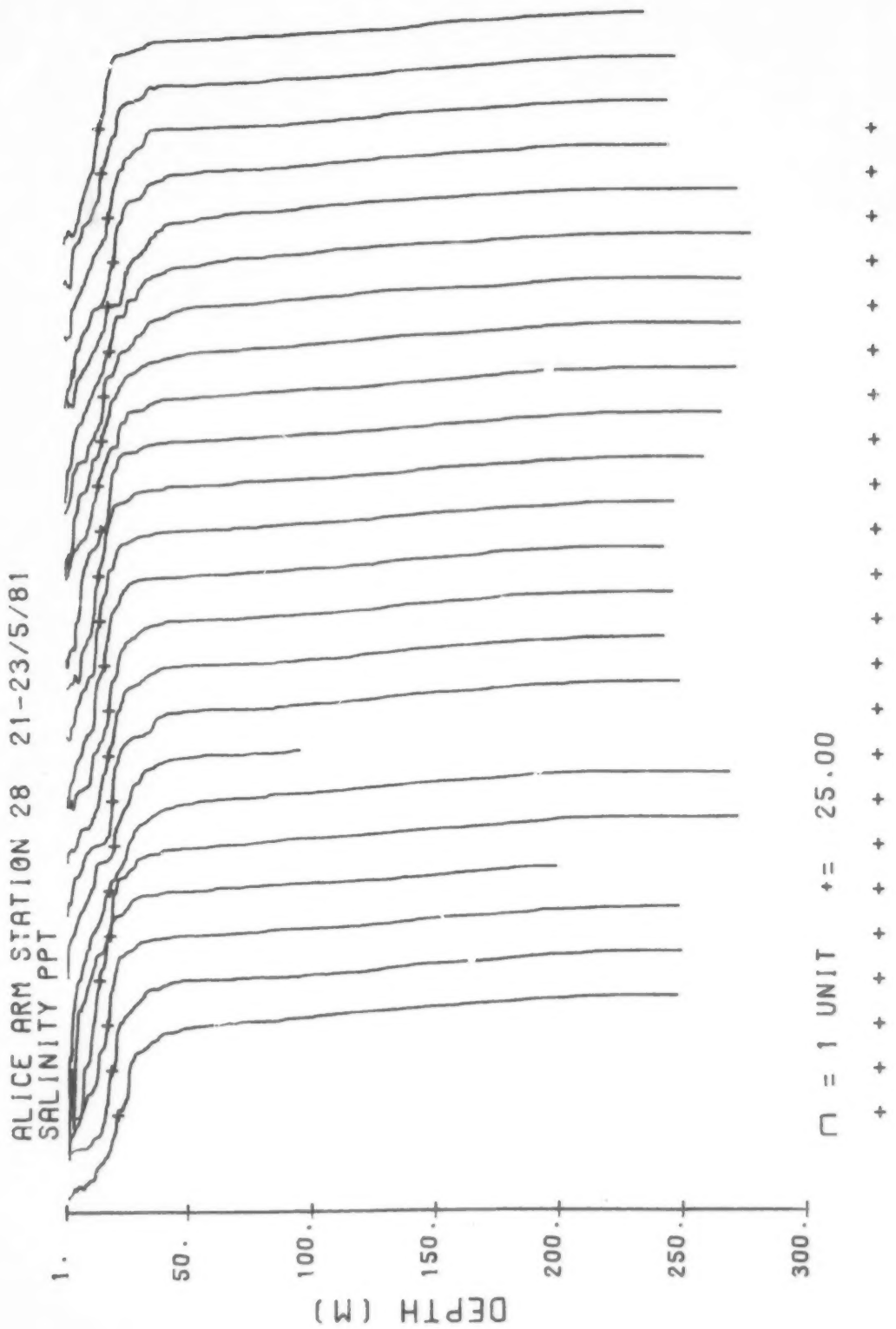

ALICE ARM - STATION 27 21-23/5/81
SIGMA-T
15.00
16.00
17.00
18.00
19.00
20.00
21.00
22.00
23.00
DEPTH (M)
1.
10.
20.
30.
40.
50.
60.
70.
80.
90.
100.
1700 1900 2100 2300 0100 0300 0500 0700 0900 1100 1300 1500 1700 1900 2100 2300 0100 0300
TIME (HHMM)

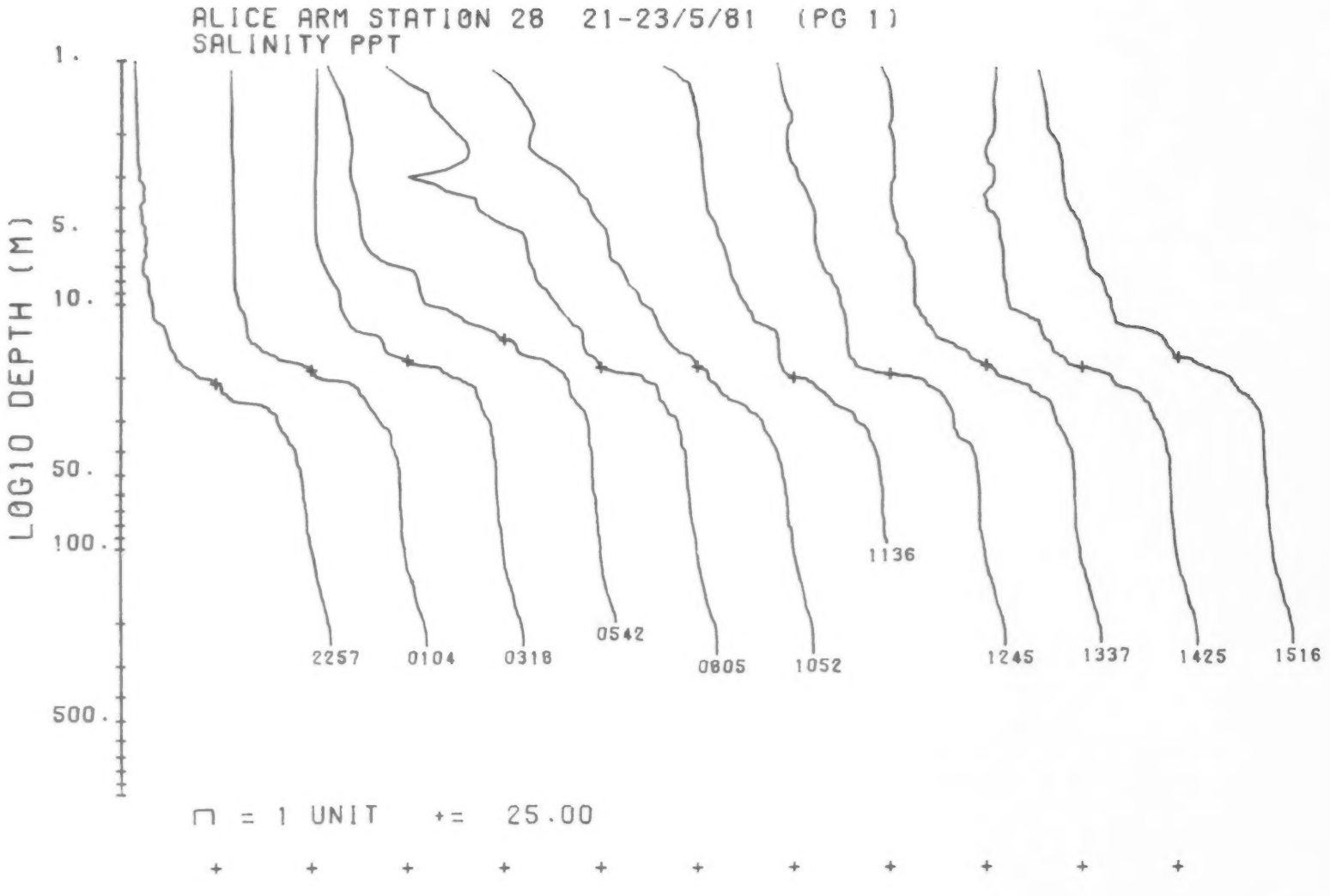

ALICE ARM STATION 27 MAY 81 (PG 1)
21 1644
22 0604
22 0626
22 1111
22 1217
22 1311
22 1402
0.
10.
20.
30.
40.
50.
60.
70.
80.
90.
100.
DEPTH (M)
DISPLACEMENT
20.00 M

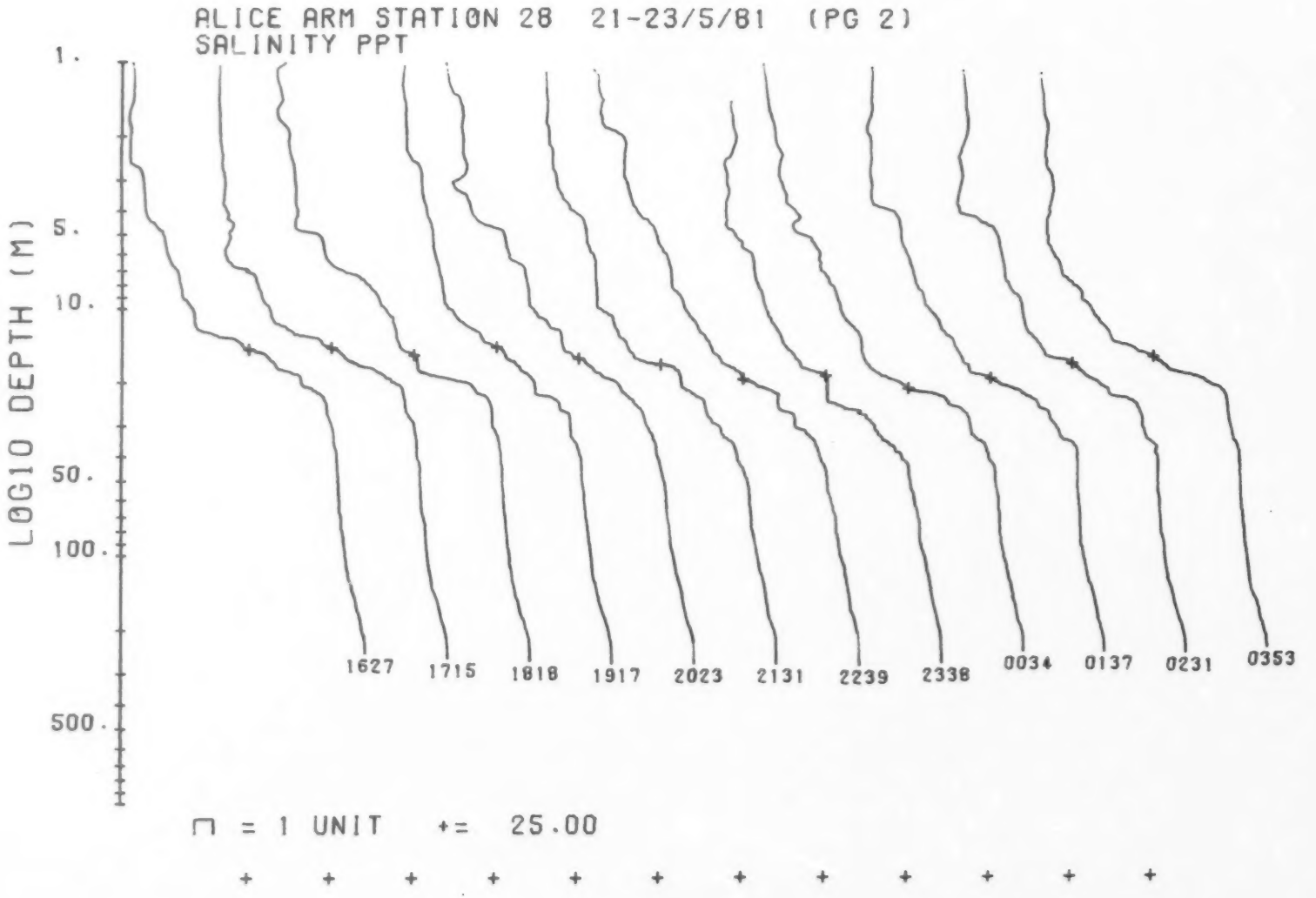

ALICE ARM STATION 27 MAY 81 (PG 2)
22 1451
22 1606
22 1653
22 1749
22 1847
22 1945
22 2040
0.
10.
20.
30.
40.
50.
60.
70.
80.
90.
100.
DEPTH (M)
DISPLACEMENT
20.00 M

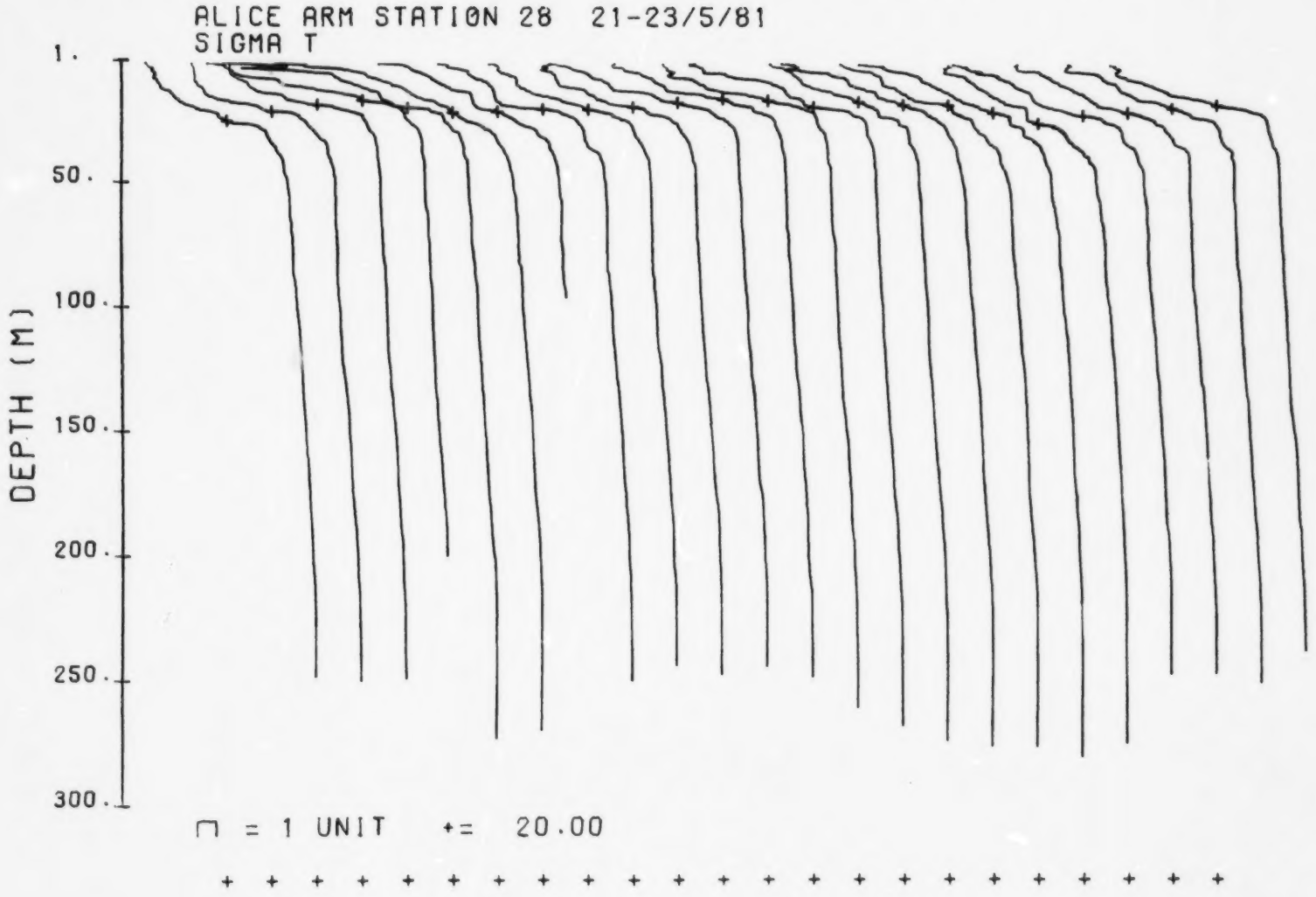

ALICE ARM STATION 27 MAY 81 (PG 3)
22 2202
22 2308
23 0012
23 0109
23 0205
23 0318
0.
10.
20.
30.
40.
50.
60.
70.
80.
90.
100.
DEPTH (M)
DISPLACEMENT
20.00 M

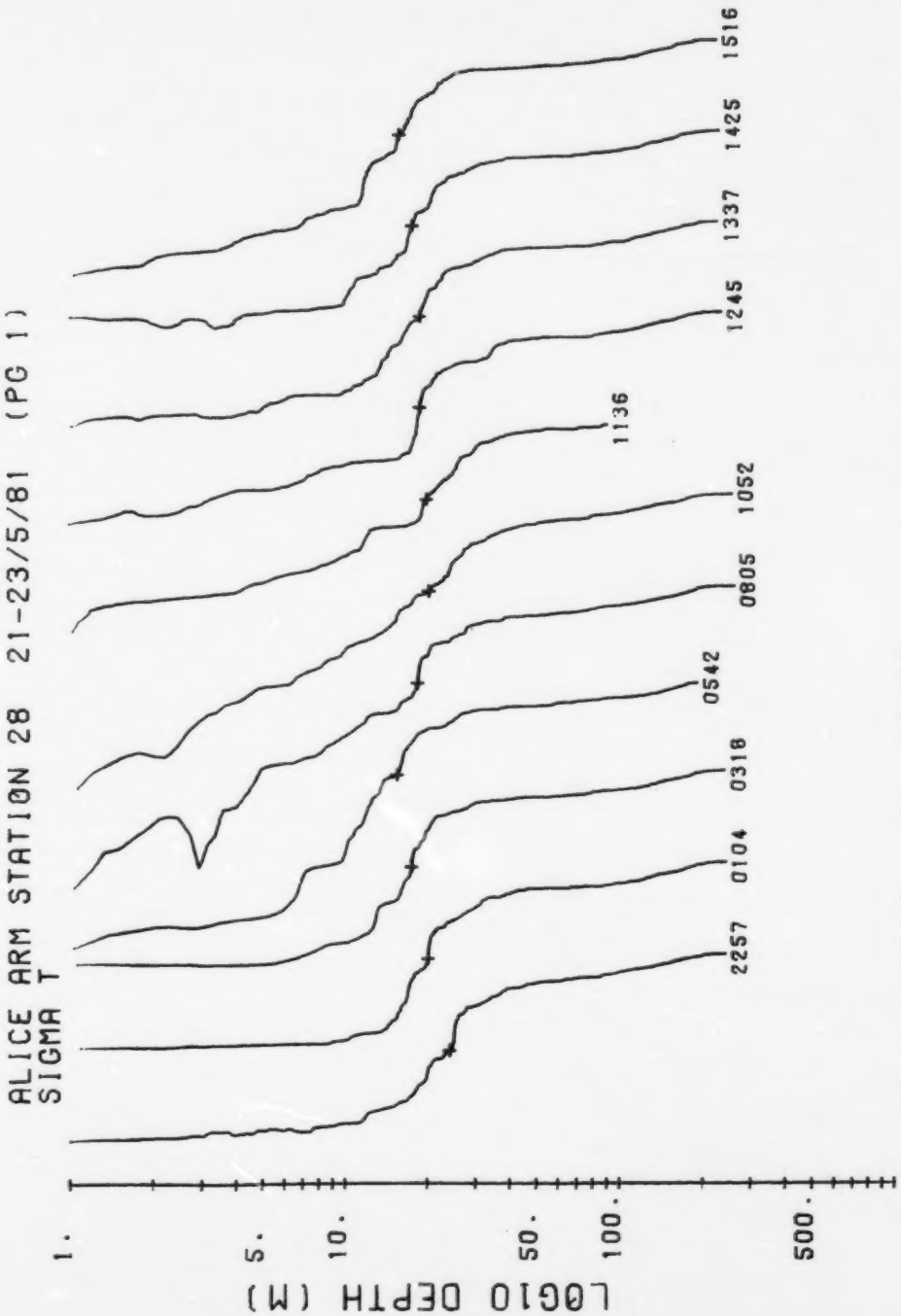
SET E: STATION 28 21-23/5/81

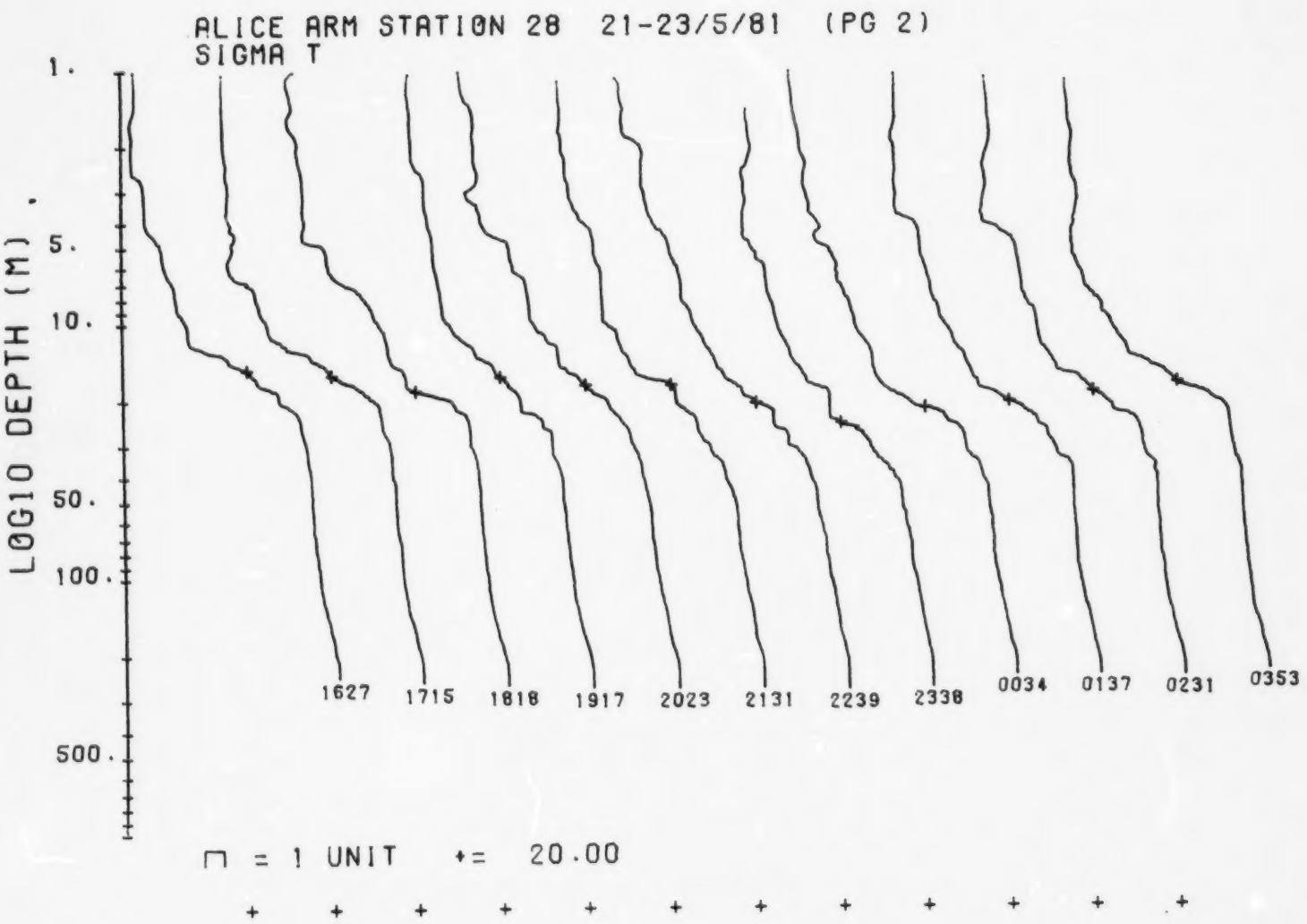

ALICE ARM STATION 28 21-23/5/81
SALINITY PPT
DEPTH (M)
1.
50.
100.
150.
200.
250.
300.
⊓ = 1 UNIT += 25.00

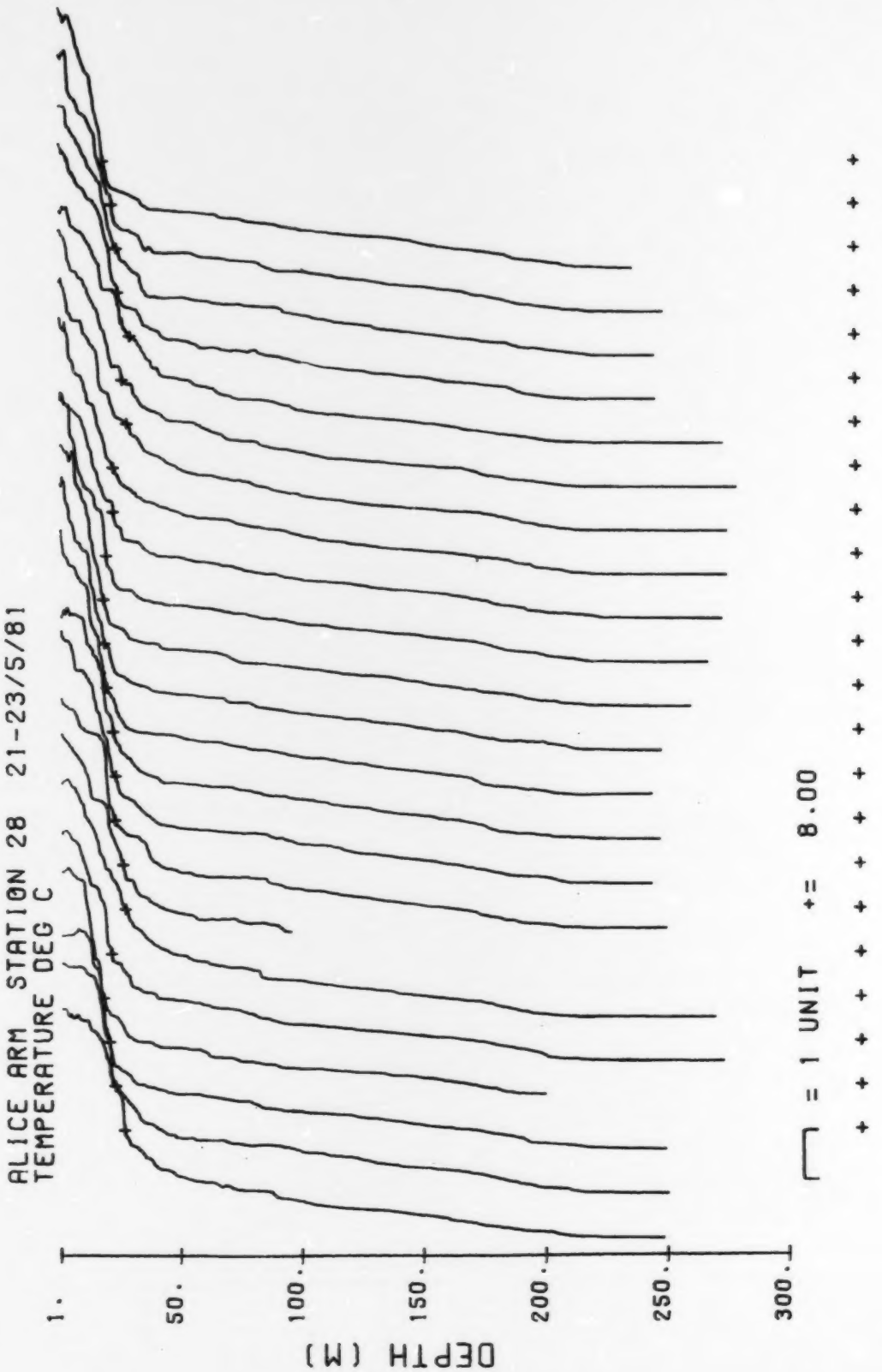

ALICE ARM STATION 28 21-23/5/81 (PG 1)
SALINITY PPT
LOG10 DEPTH (M)
1.
5.
10.
50.
100.
500.
2257
0104
0318
0542
0805
1052
1136
1245
1337
1425
1516
□ = 1 UNIT += 25.00

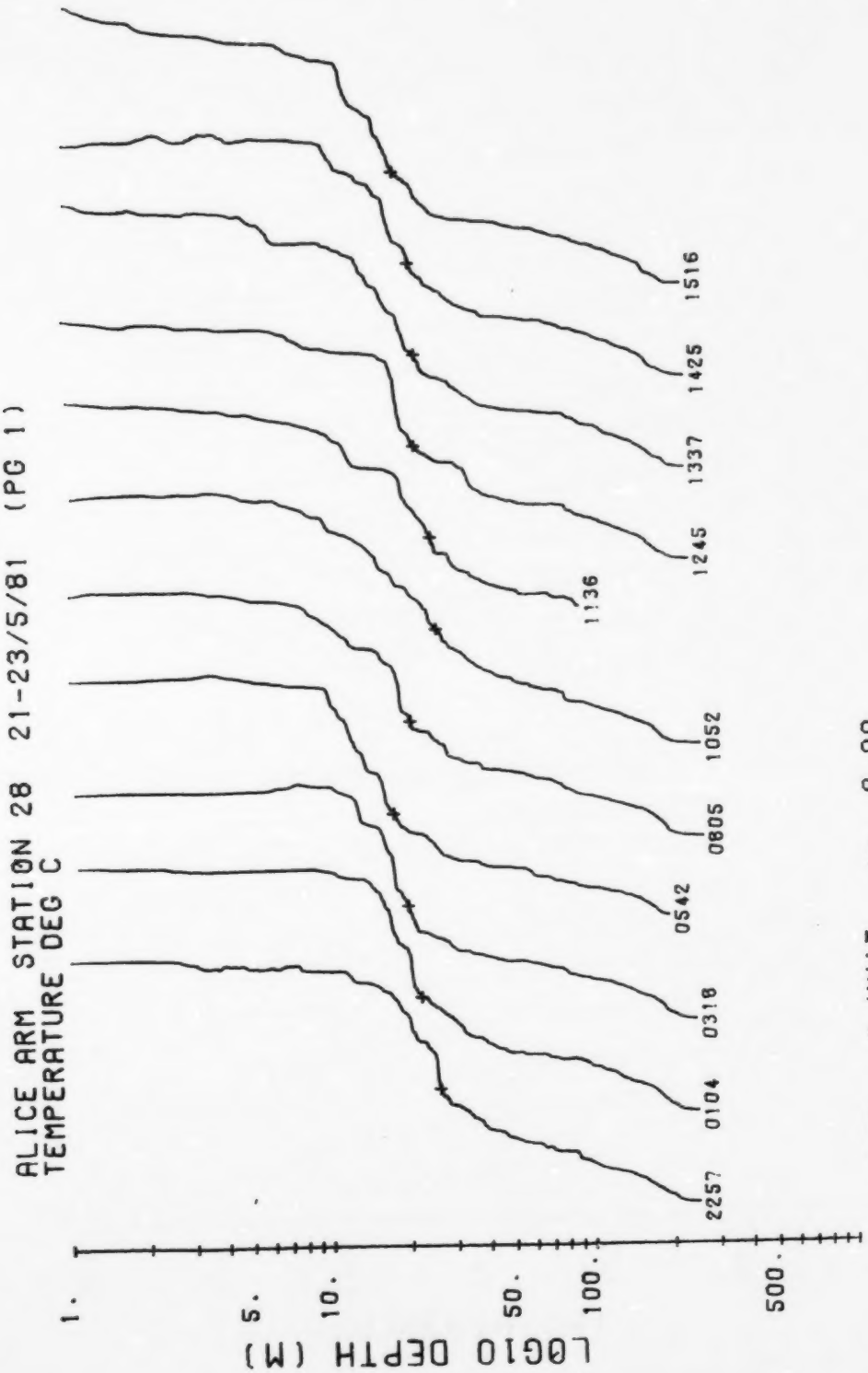

ALICE ARM STATION 28 21-23/5/81 (PG 2)
SALINITY PPT
LOG10 DEPTH (M)
1.
5.
10.
50.
100.
500.
1627
1715
1818
1917
2023
2131
2239
2338
0034
0137
0231
0353
= 1 UNIT += 25.00

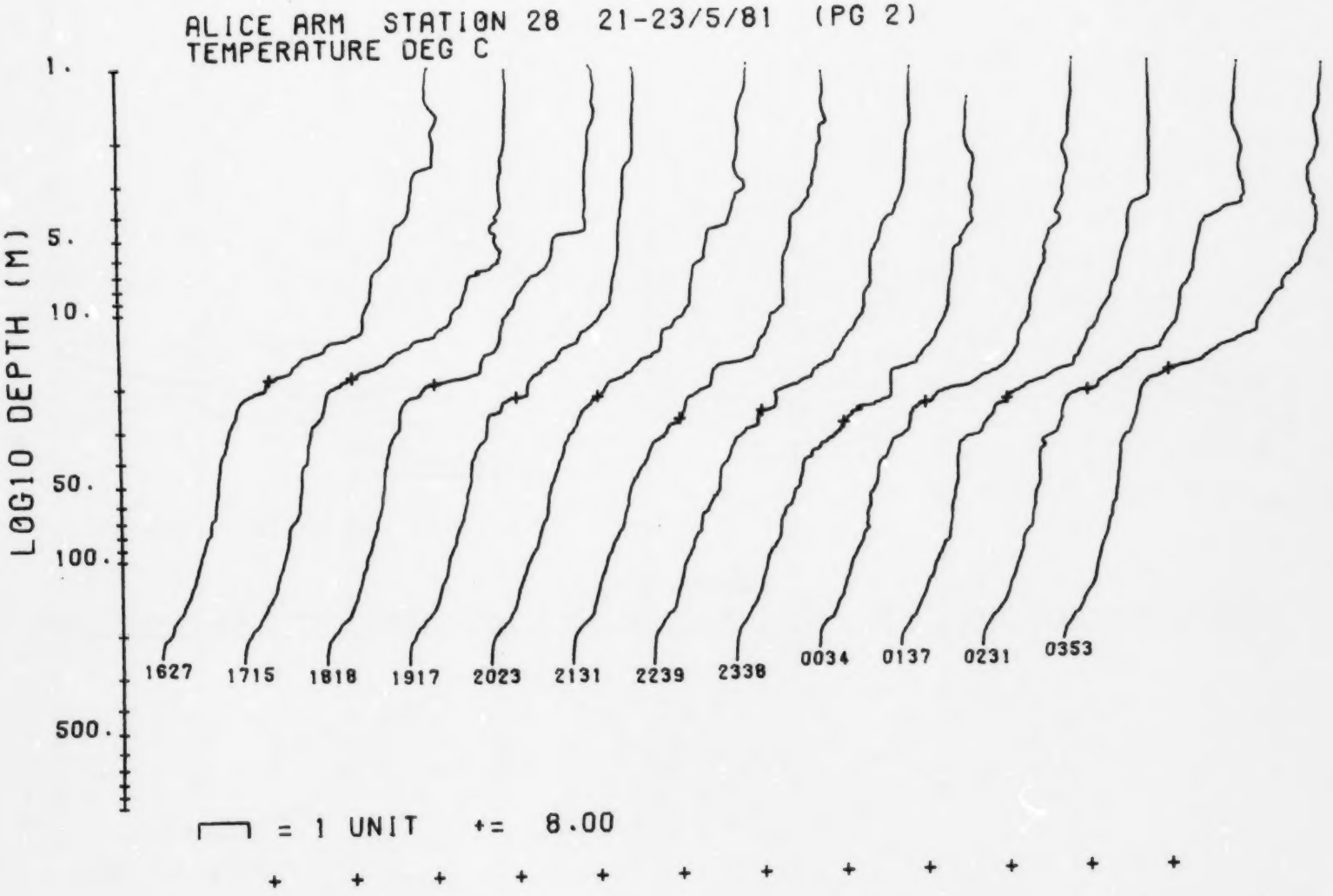

ALICE ARM STATION 28 21-23/5/81
SIGMA T
1.
50.
100.
150.
200.
250.
300.
DEPTH (M)
□ = 1 UNIT +=
20.00

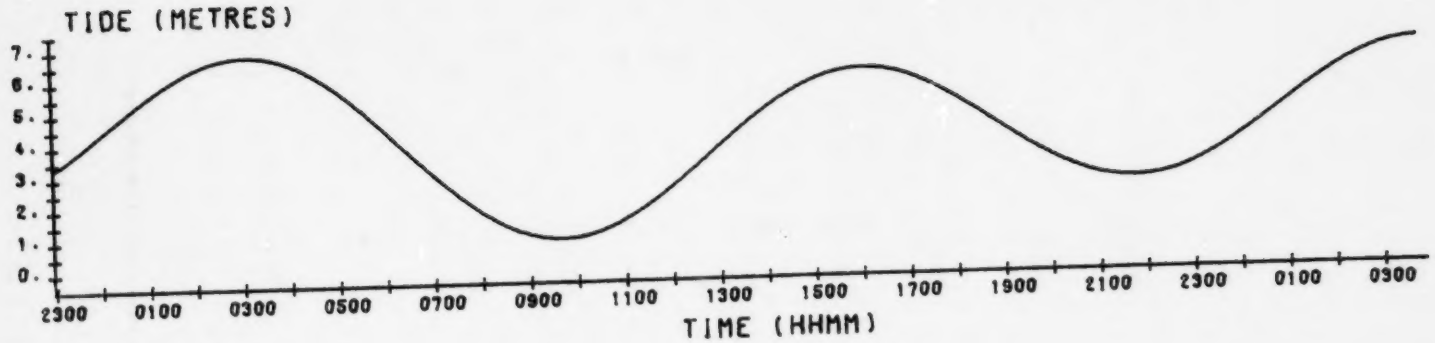

ALICE ARM STATION 28 21-23/5/81 (PG 1)
SIGMA T
LOG10 DEPTH (M)
1.
5.
10.
50.
100.
500.
2257
0104
0318
0542
0805
1052
1136
1245
1337
1425
1516
⊓ = 1 UNIT += 20.00

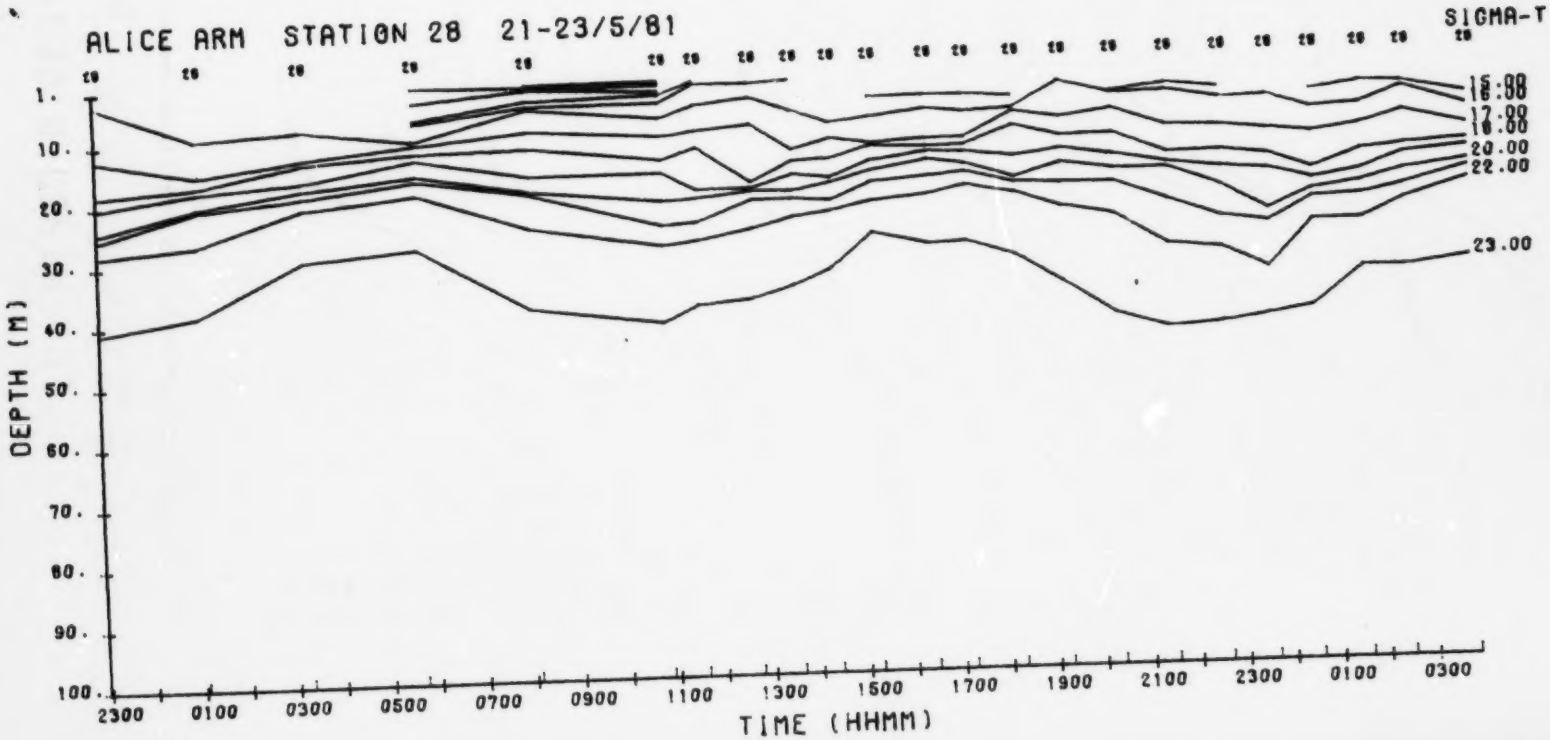

ALICE ARM STATION 28 21-23/5/81 (PG 2)
SIGMA T
LOG10 DEPTH (M)
1.
5.
10.
50.
100.
500.
1627
1715
1818
1917
2023
2131
2239
2338
0034
0137
0231
0353
□ = 1 UNIT + = 20.00

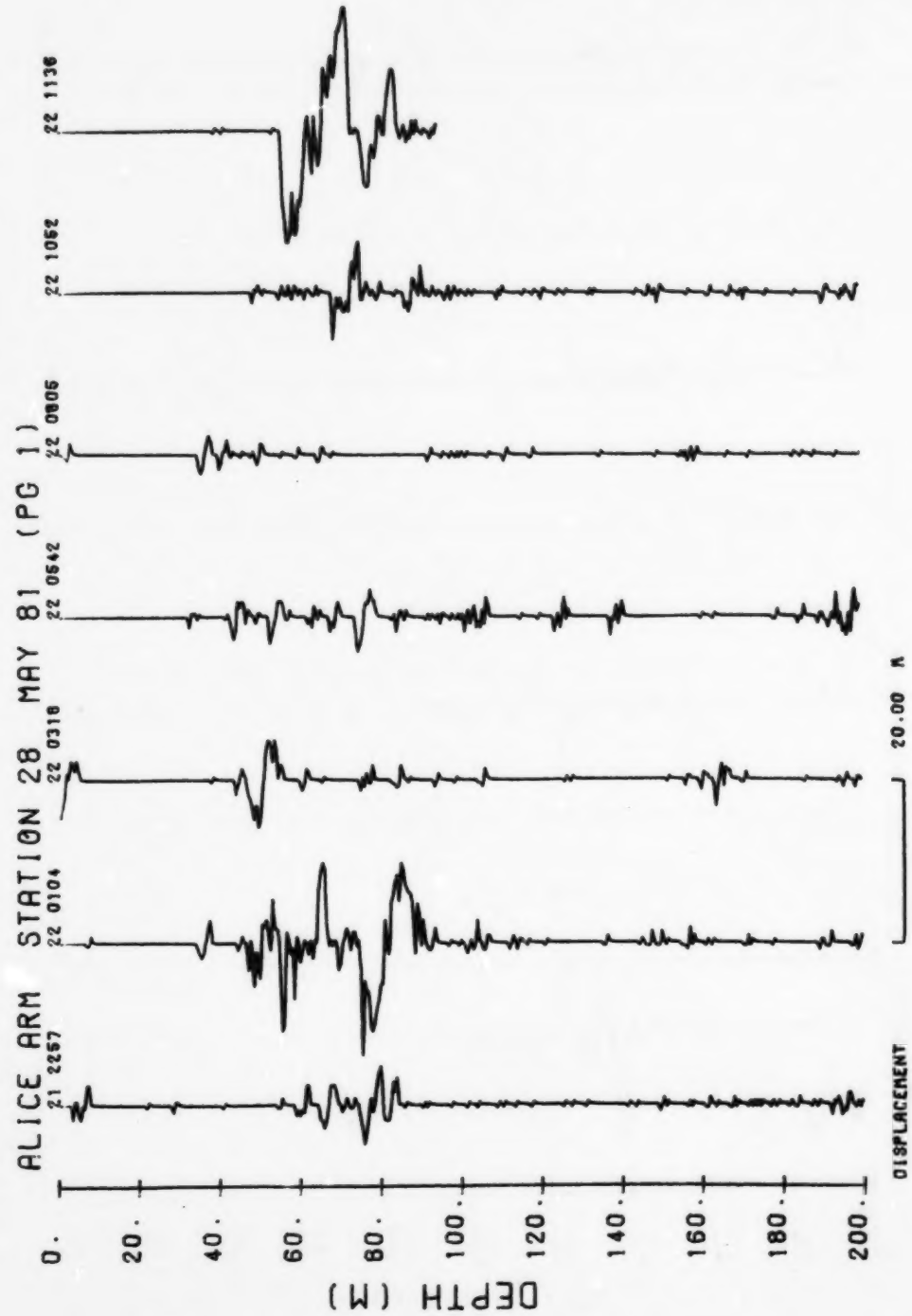

ALICE ARM STATION 28 21-23/5/81
TEMPERATURE DEG C
DEPTH (M)
1.
50.
100.
150.
200.
250.
300.
= 1 UNIT += 8.00

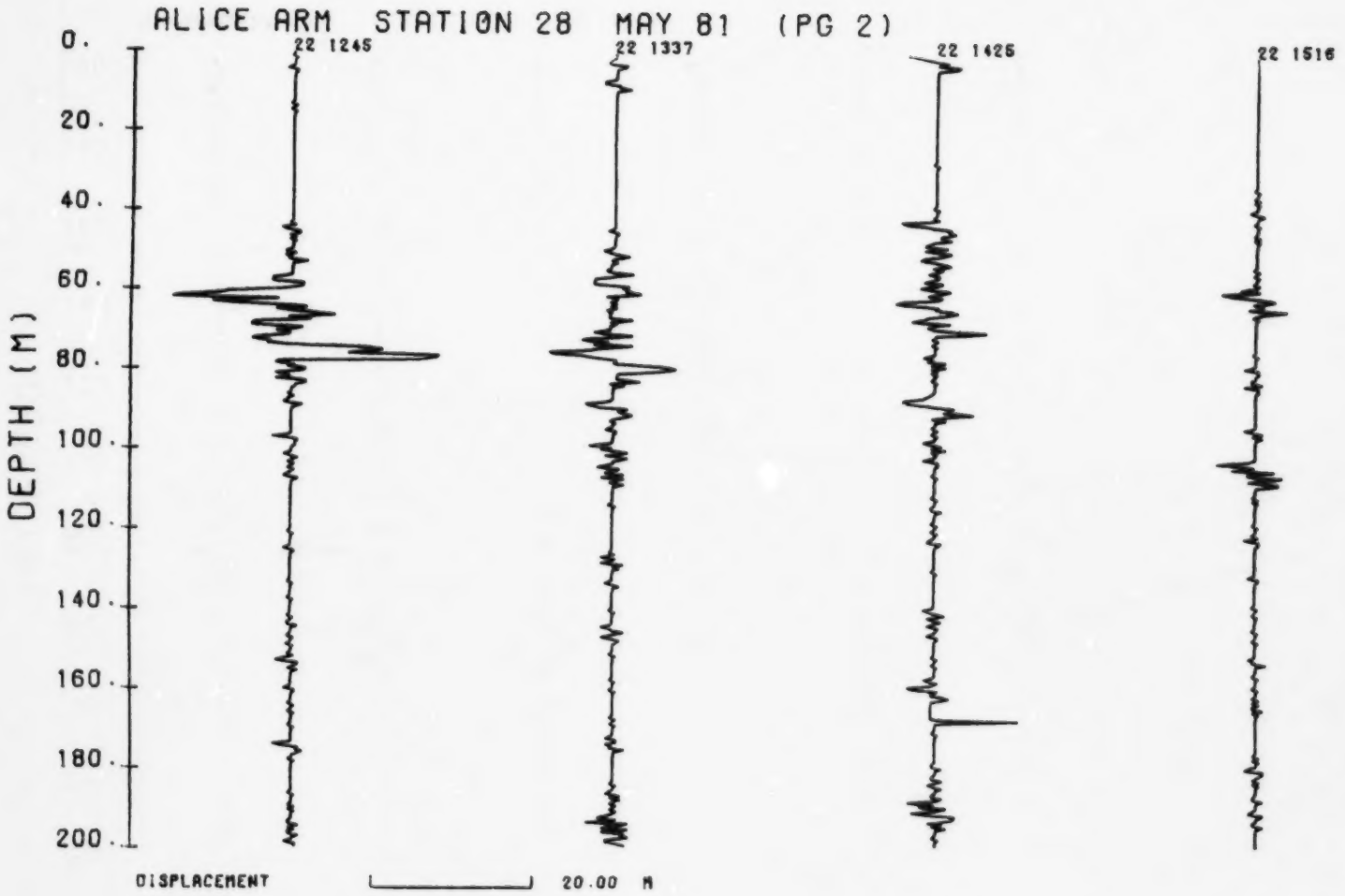

ALICE ARM STATION 28 21-23/5/81 (PG 1)
TEMPERATURE DEG C
LOG10 DEPTH (M)
1.
5.
10.
50.
100.
500.
2257
0104
0318
0542
0805
1052
1136
1245
1337
1425
1516
= 1 UNIT += 8.00

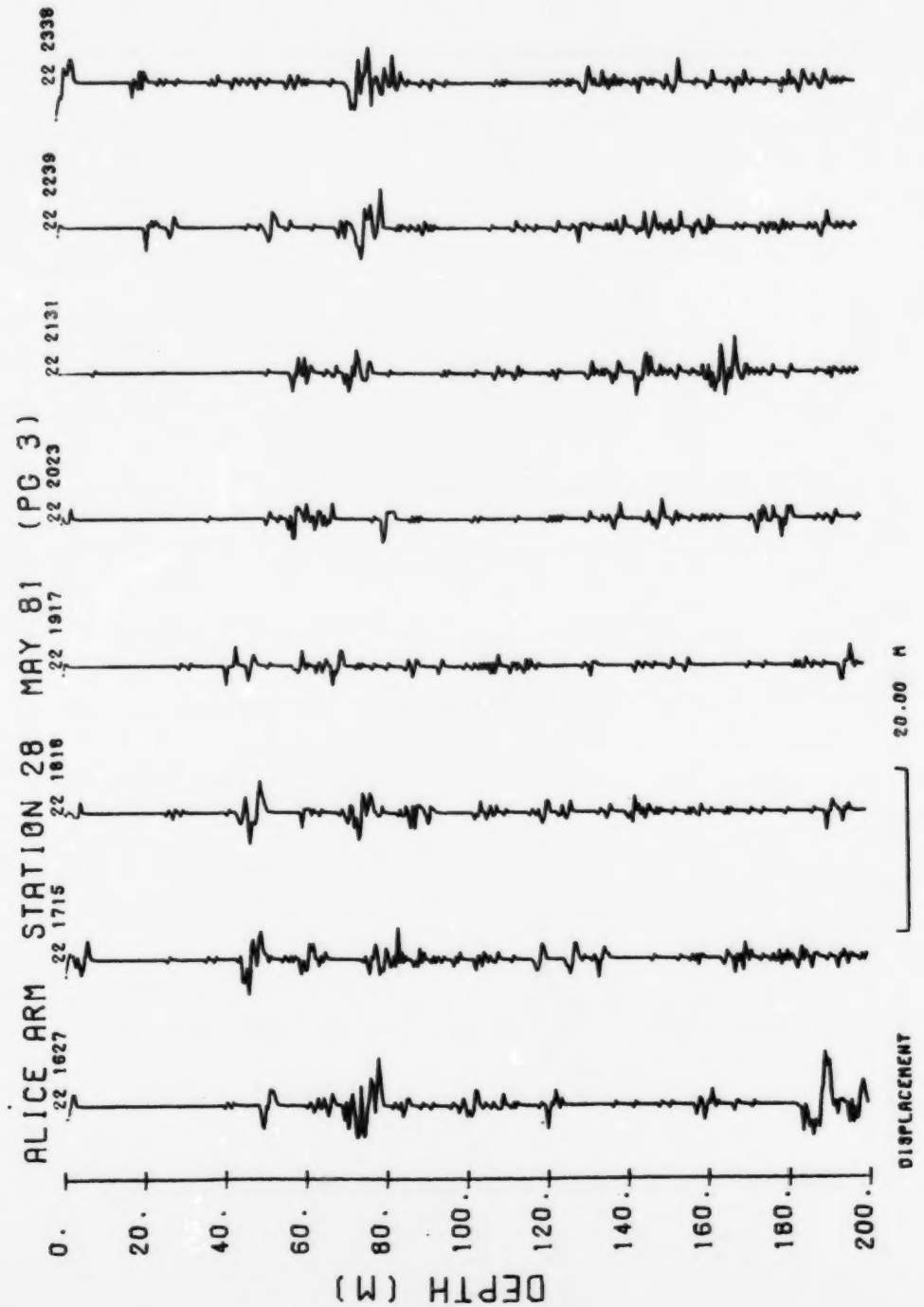

ALICE ARM STATION 28 21-23/5/81 (PG 2)
TEMPERATURE DEG C
LOG10 DEPTH (M)
1.
5.
10.
50.
100.
500.
1627
1715
1818
1917
2023
2131
2239
2338
0034
0137
0231
0353
= 1 UNIT
+= 8.00

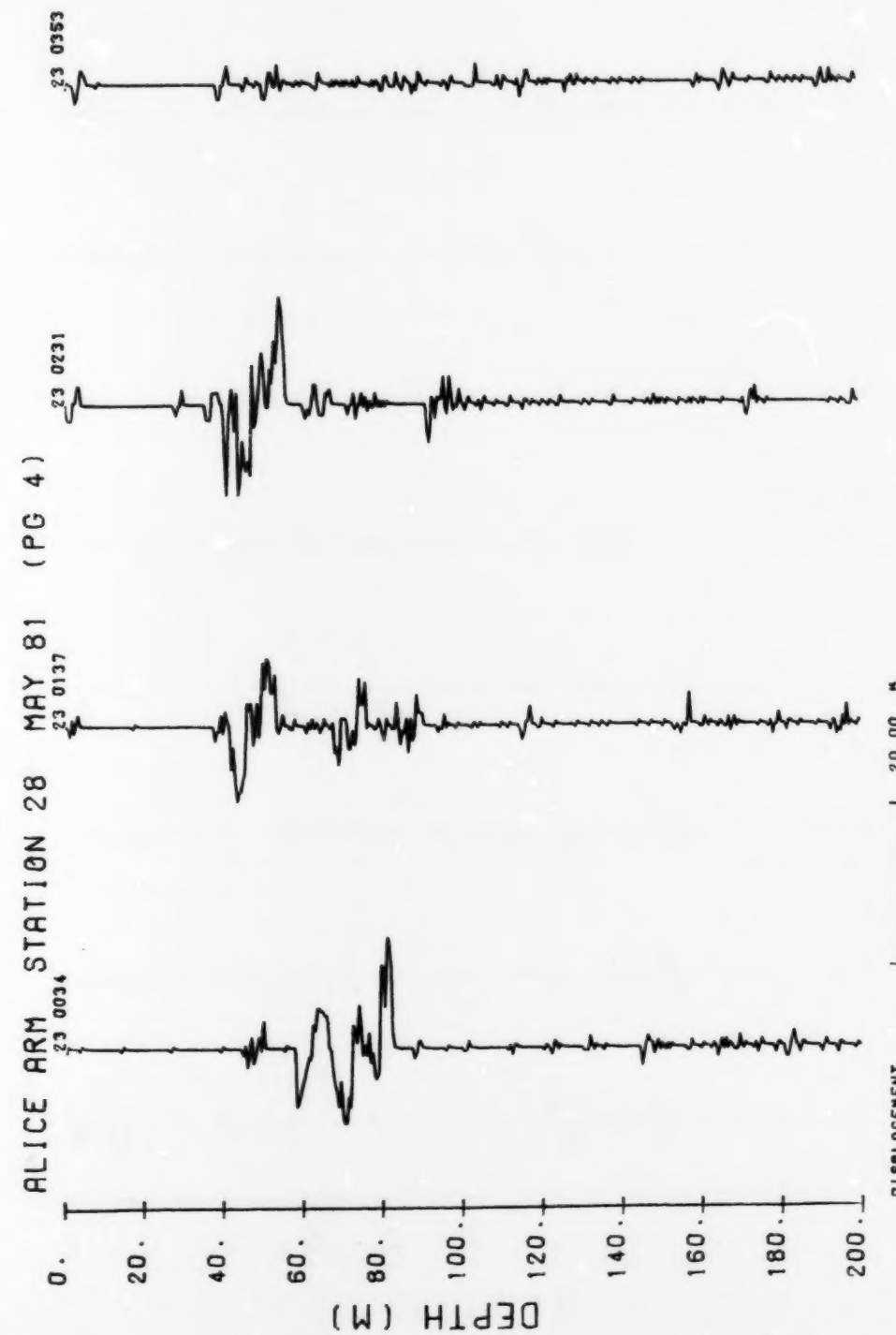

TIDE (METRES)
7.
6.
5.
4.
3.
2.
1.
0.
2300
0100
0300
0500
0700
0900
1100
1300
1500
1700
1900
2100
2300
0100
0300
TIME (HHMM)


ALICE ARM STATION 28 21-23/5/81
SIGMA-T
DEPTH (M)
1.
10.
20.
30.
40.
50.
60.
70.
80.
90.
100.
16:00
17:00
18:00
20.00
22.00
23.00
2300
0100
0300
0500
0700
0900
1100
1300
1500
1700
1900
2100
2300
0100
0300
TIME (HHMM)

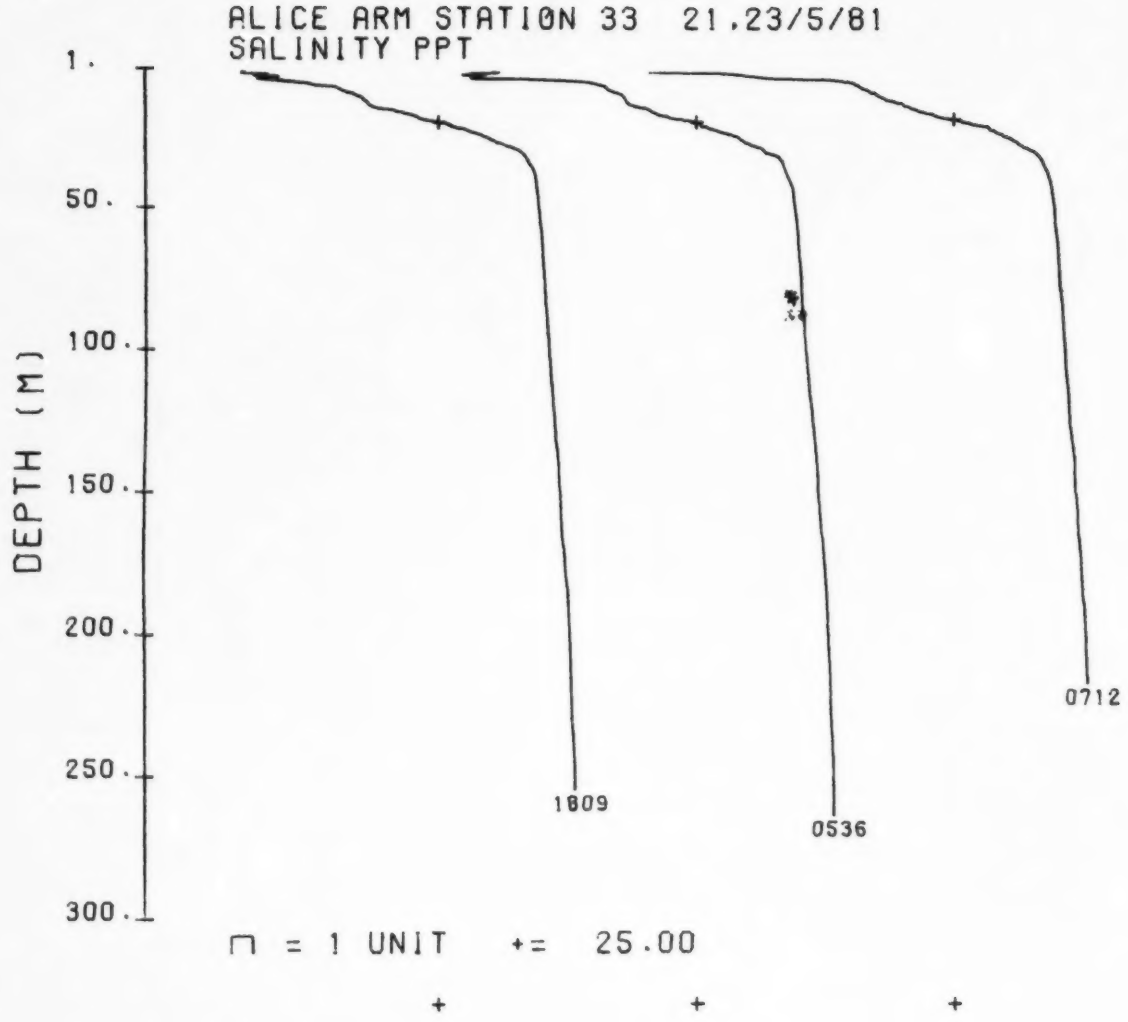

ALICE ARM STATION 28 MAY 81 (PG 1)
21 2257
22 0104
22 0318
22 0542
22 0806
22 1052
22 1136
20.00 M
DISPLACEMENT
0.
20.
40.
60.
80.
100.
120.
140.
160.
180.
200.
DEPTH (M)

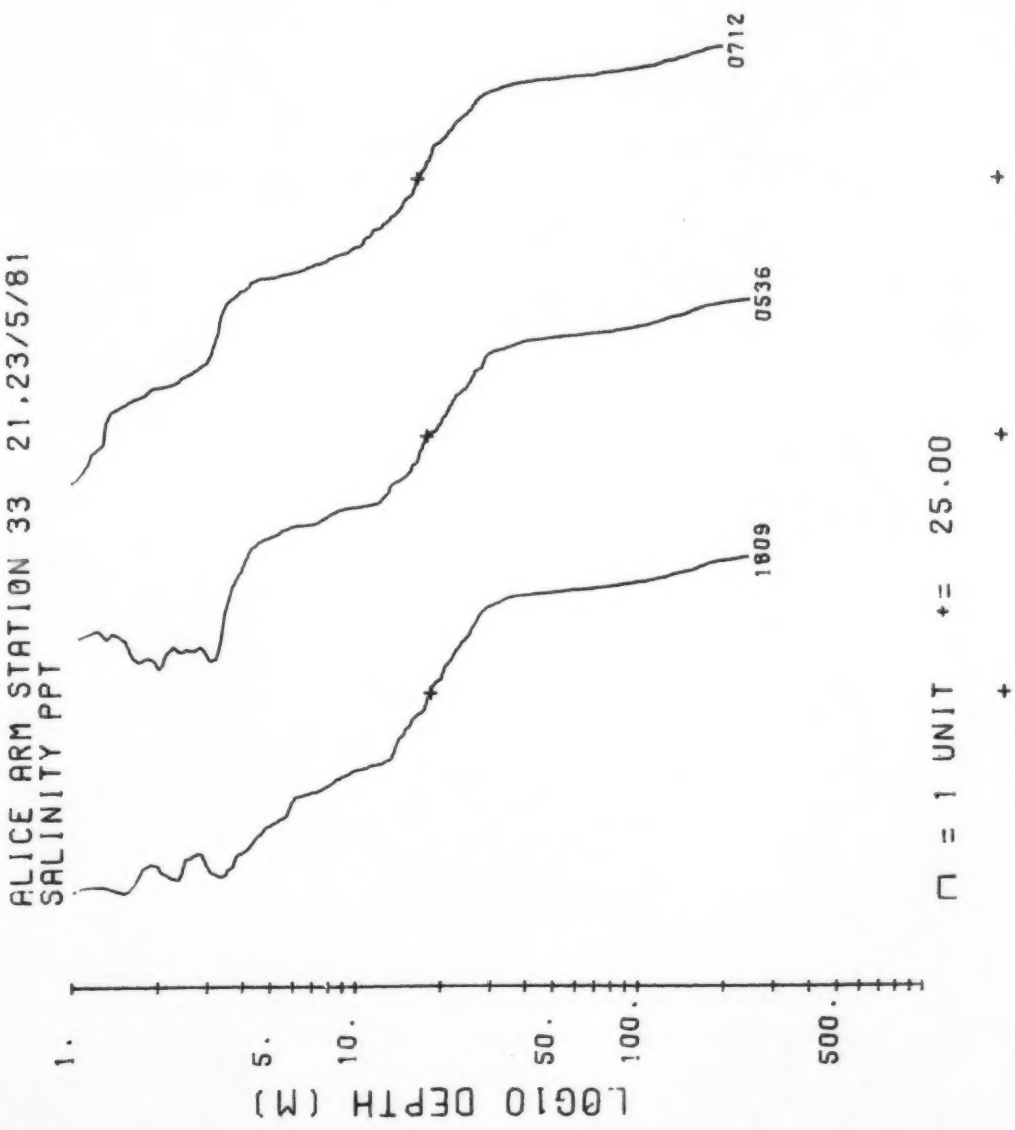

ALICE ARM STATION 28 MAY 81 (PG 2)
22 1245
22 1337
22 1425
22 1516
DEPTH (M)
0.
20.
40.
60.
80.
100.
120.
140.
160.
180.
200.
DISPLACEMENT
20.00 M

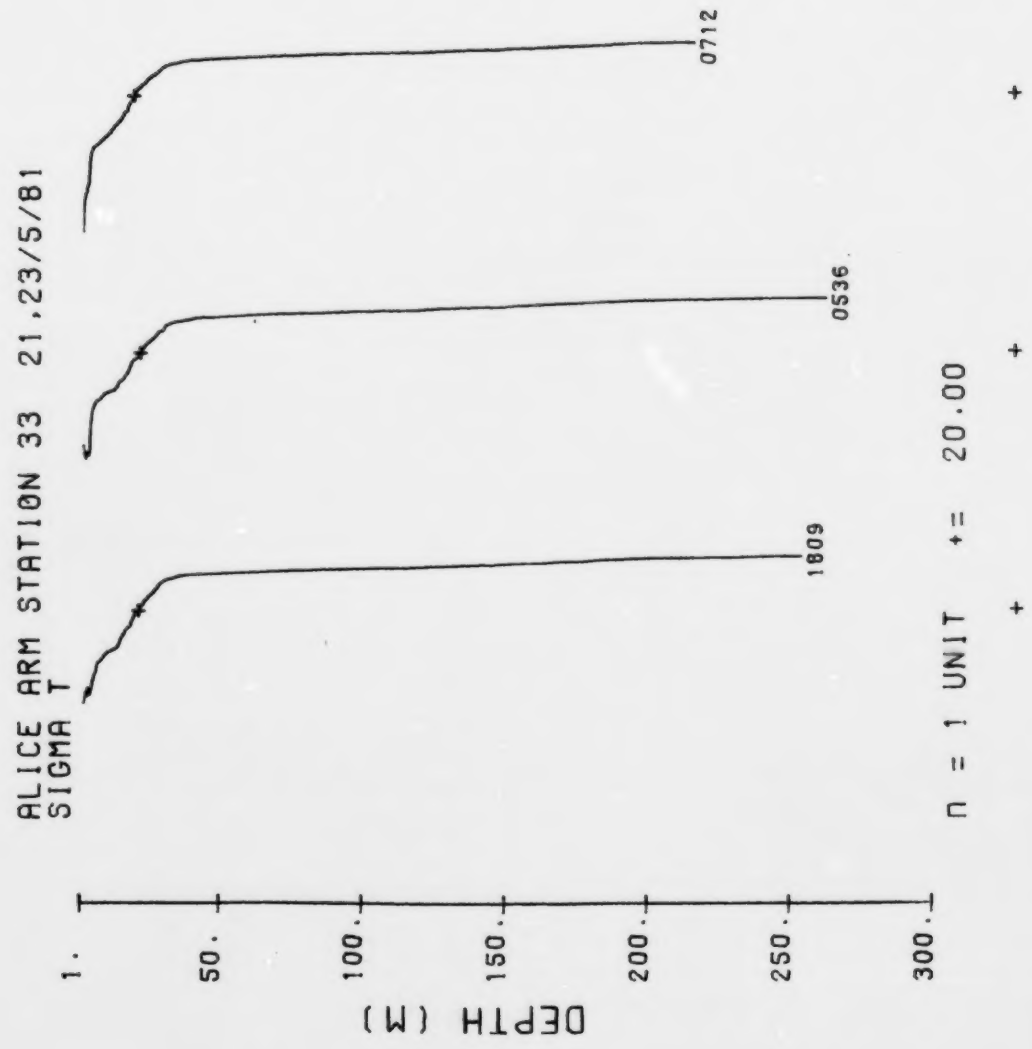

ALICE ARM STATION 28 MAY 81 (PG 3)
22 1627
22 1715
22 1816
22 1917
22 2023
22 2131
22 2239
22 2338
0.
20.
40.
60.
80.
100.
120.
140.
160.
180.
200.
DEPTH (M)
20.00 M
DISPLACEMENT

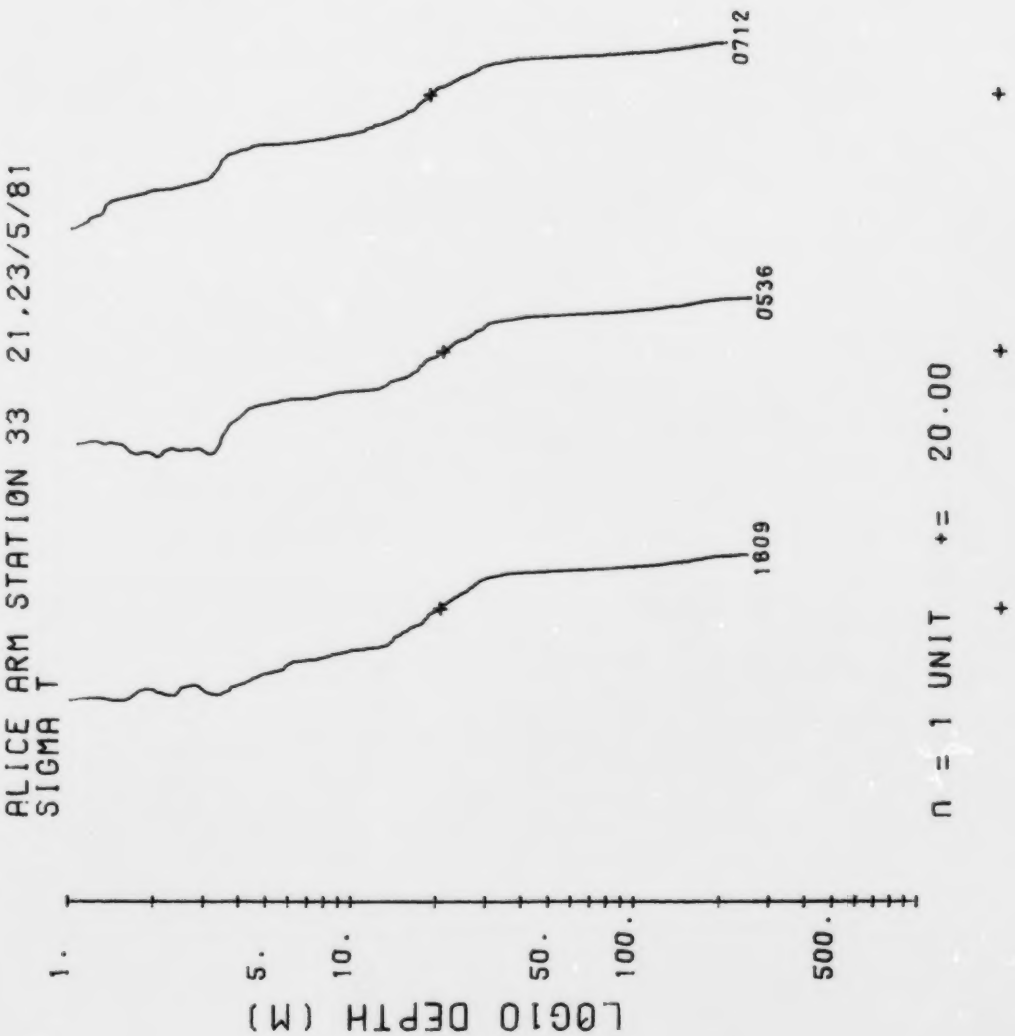

ALICE ARM STATION 28 MAY 81 (PG 4)
23 0034
23 0137
23 0231
23 0353
0.
20.
40.
60.
80.
100.
120.
140.
160.
180.
200.
DEPTH (M)
DISPLACEMENT
20.00 M

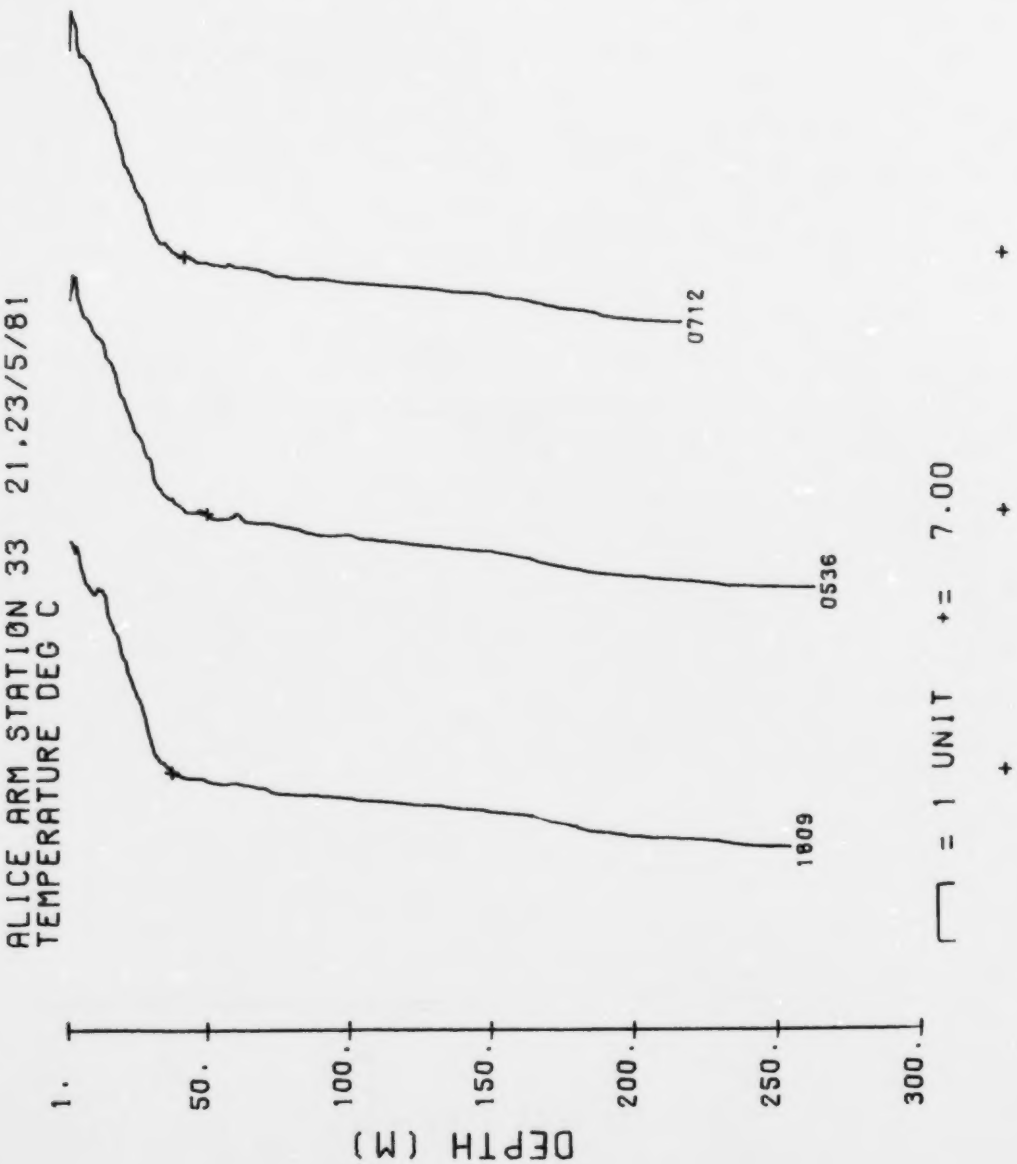
SET F: STATION 33 21,23/5/81

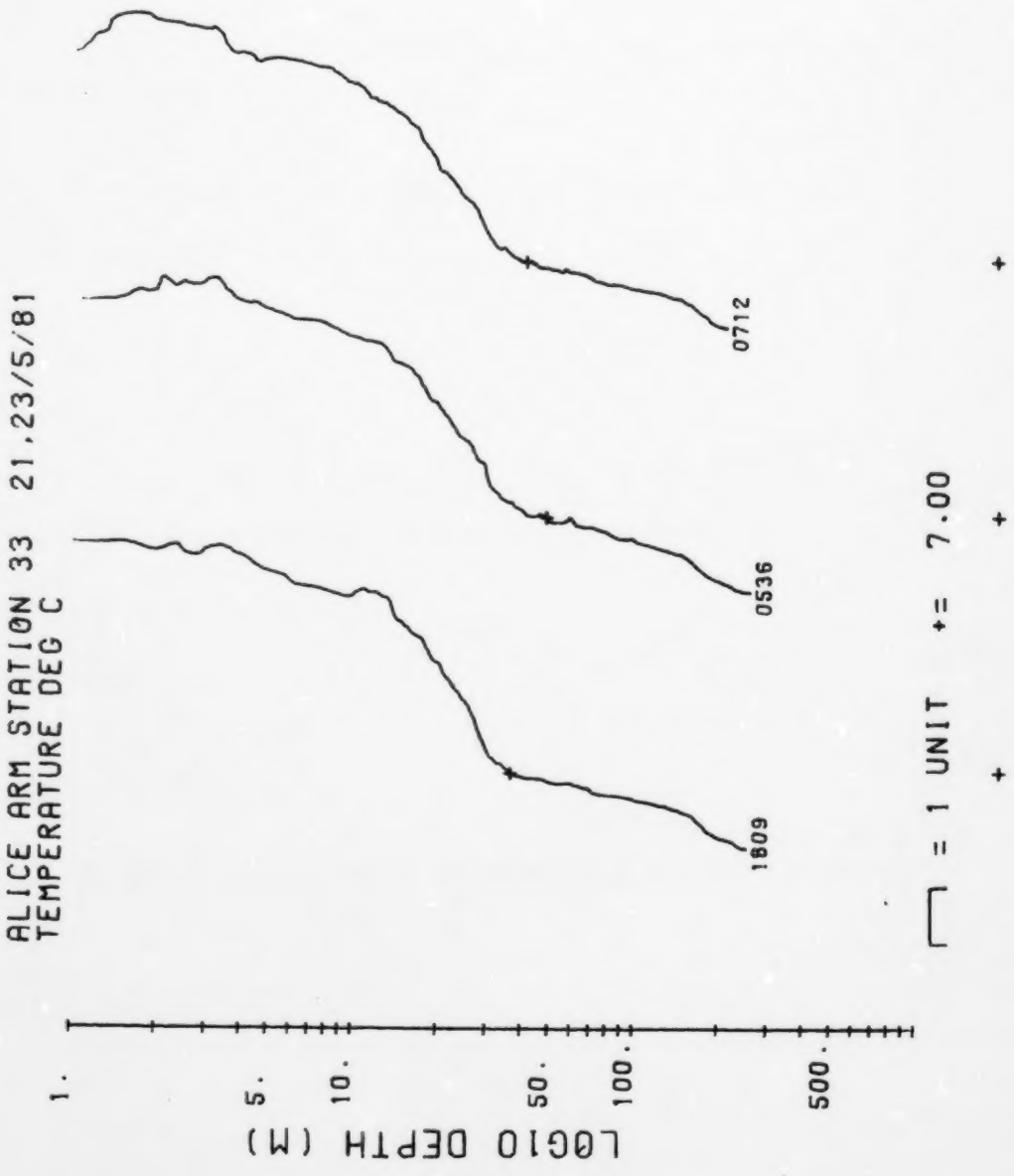

ALICE ARM STATION 33 21.23/5/81
SALINITY PPT
1.
50.
100.
150.
200.
250.
300.
DEPTH (M)
1809
0536
0712
□ = 1 UNIT += 25.00

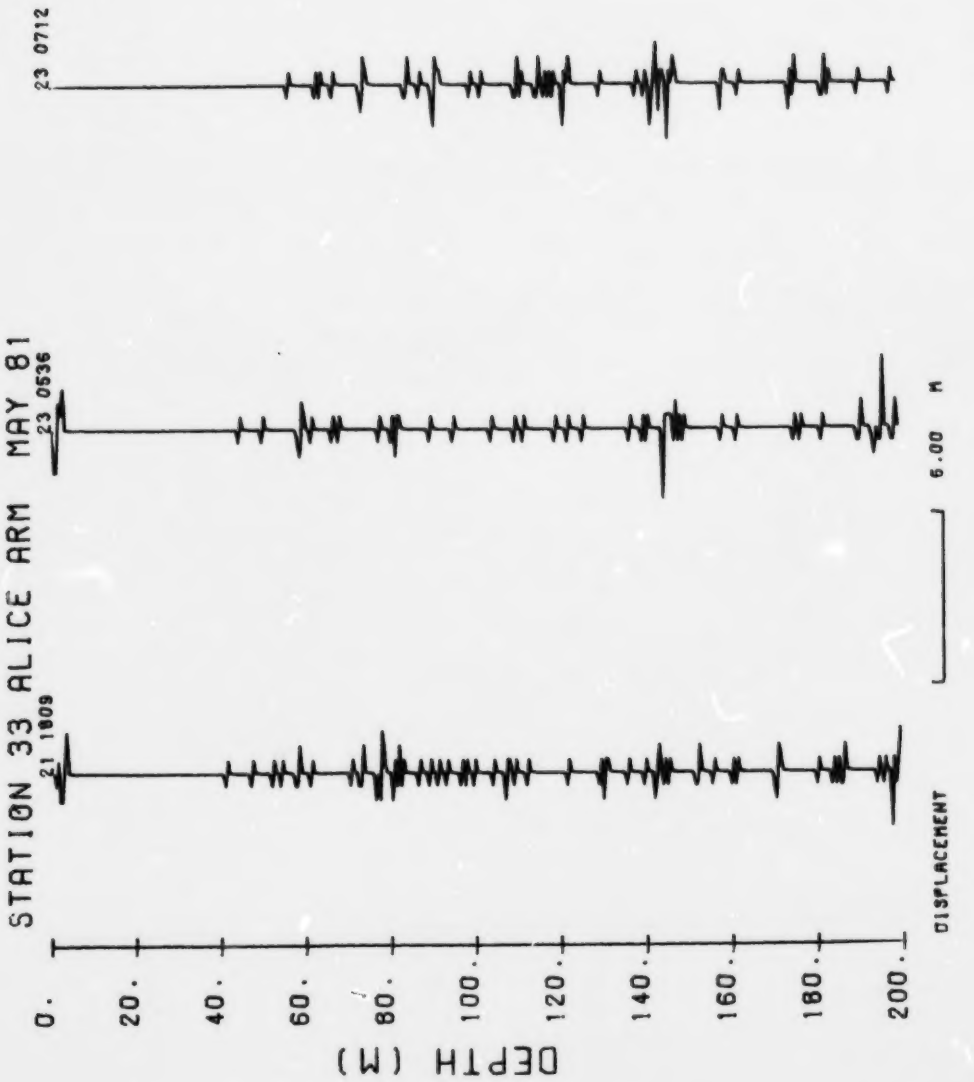

ALICE ARM STATION 33 21,23/5/81
SALINITY PPT
0712
0536
1809
1.
5.
10.
50.
100.
500.
LOG10 DEPTH (M)
⊓ = 1 UNIT += 25.00


ALICE ARM STATION 33 21,23/5/81
SIGMA T
0712
0536
1809
DEPTH (M)
1.
50.
100.
150.
200.
250.
300.
n = 1 UNIT += 20.00

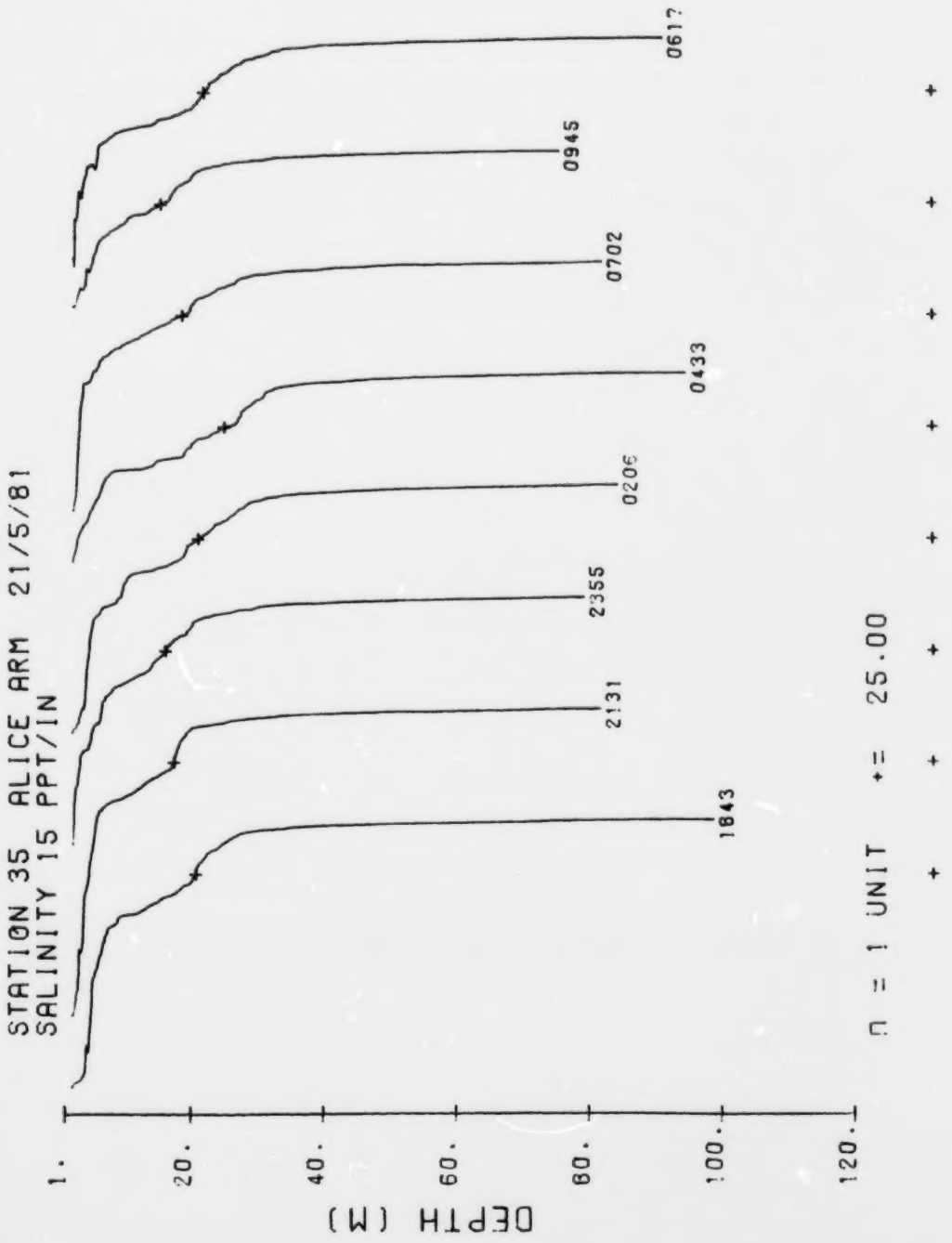

ALICE ARM STATION 33 21,23/5/81
SIGMA T
0712
0536
1809
LOG10 DEPTH (M)
1.
5.
10.
50.
100.
500.
n = 1 UNIT += 20.00

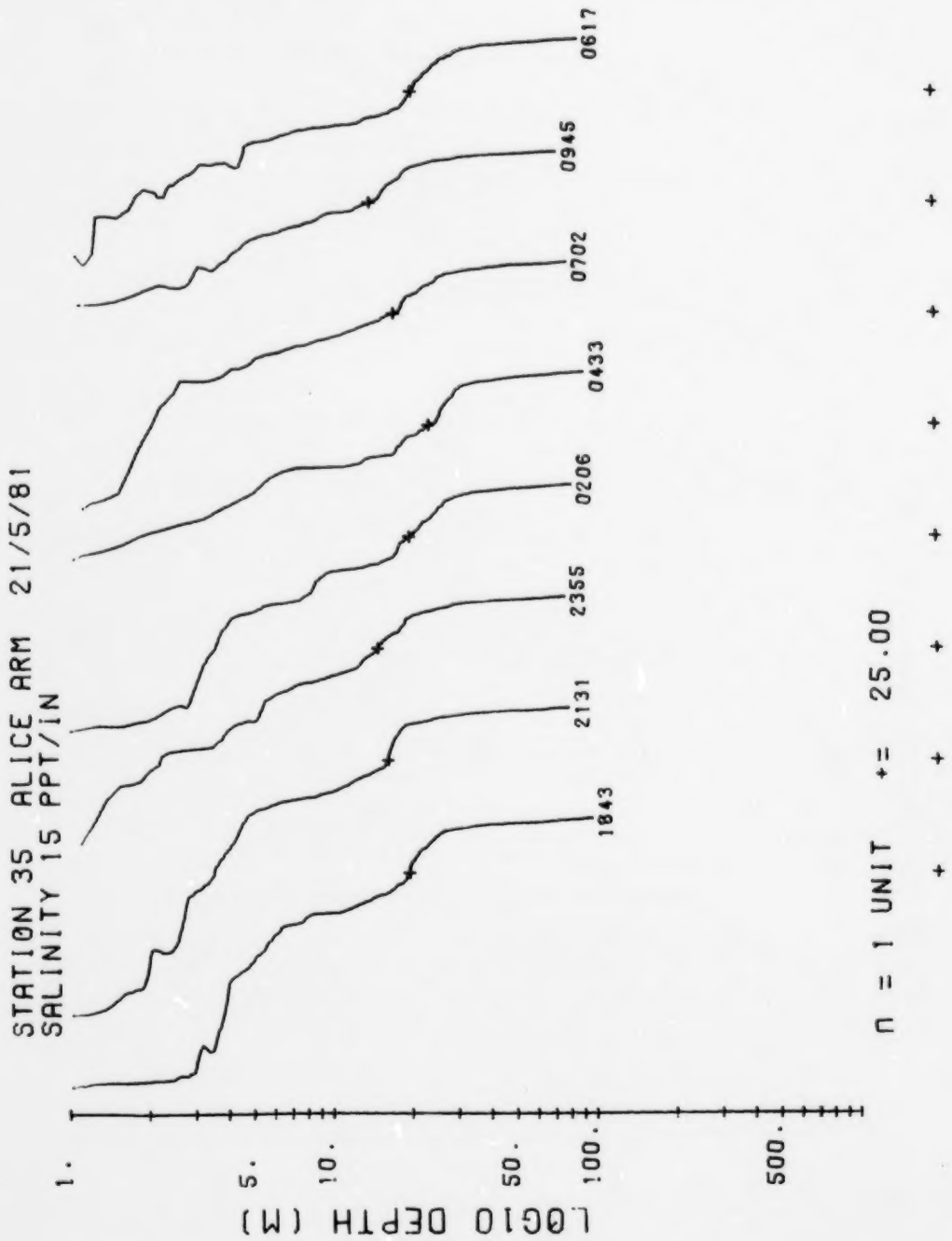

ALICE ARM STATION 33 21.23/5/81
TEMPERATURE DEG C
DEPTH (M)
1.
50.
100.
150.
200.
250.
300.
1809
0536
0712
= 1 UNIT += 7.00

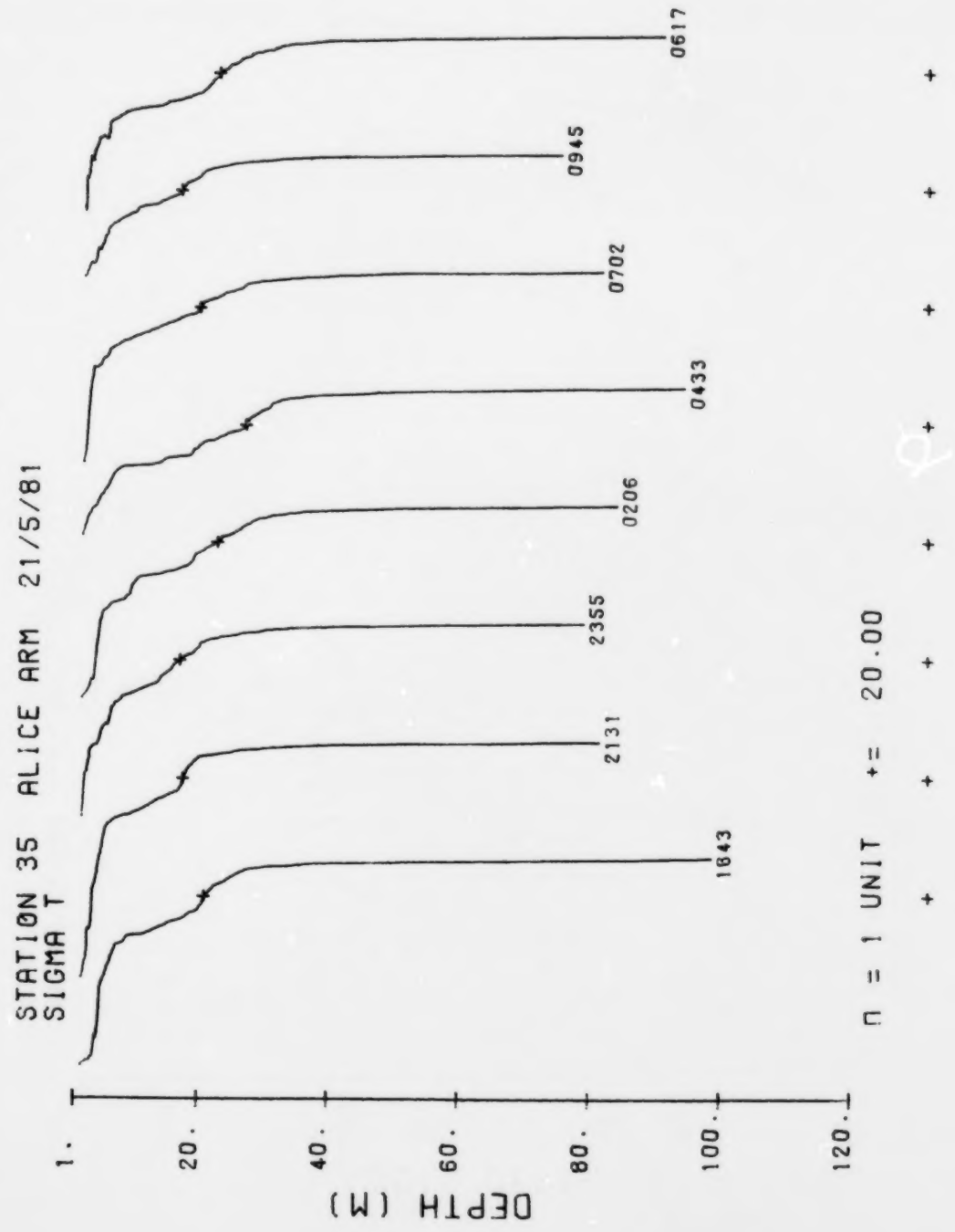

ALICE ARM STATION 33 21,23/5/81
TEMPERATURE DEG C
LOG10 DEPTH (M)
1.
5.
10.
50.
100.
500.
1809
0536
0712
= 1 UNIT += 7.00

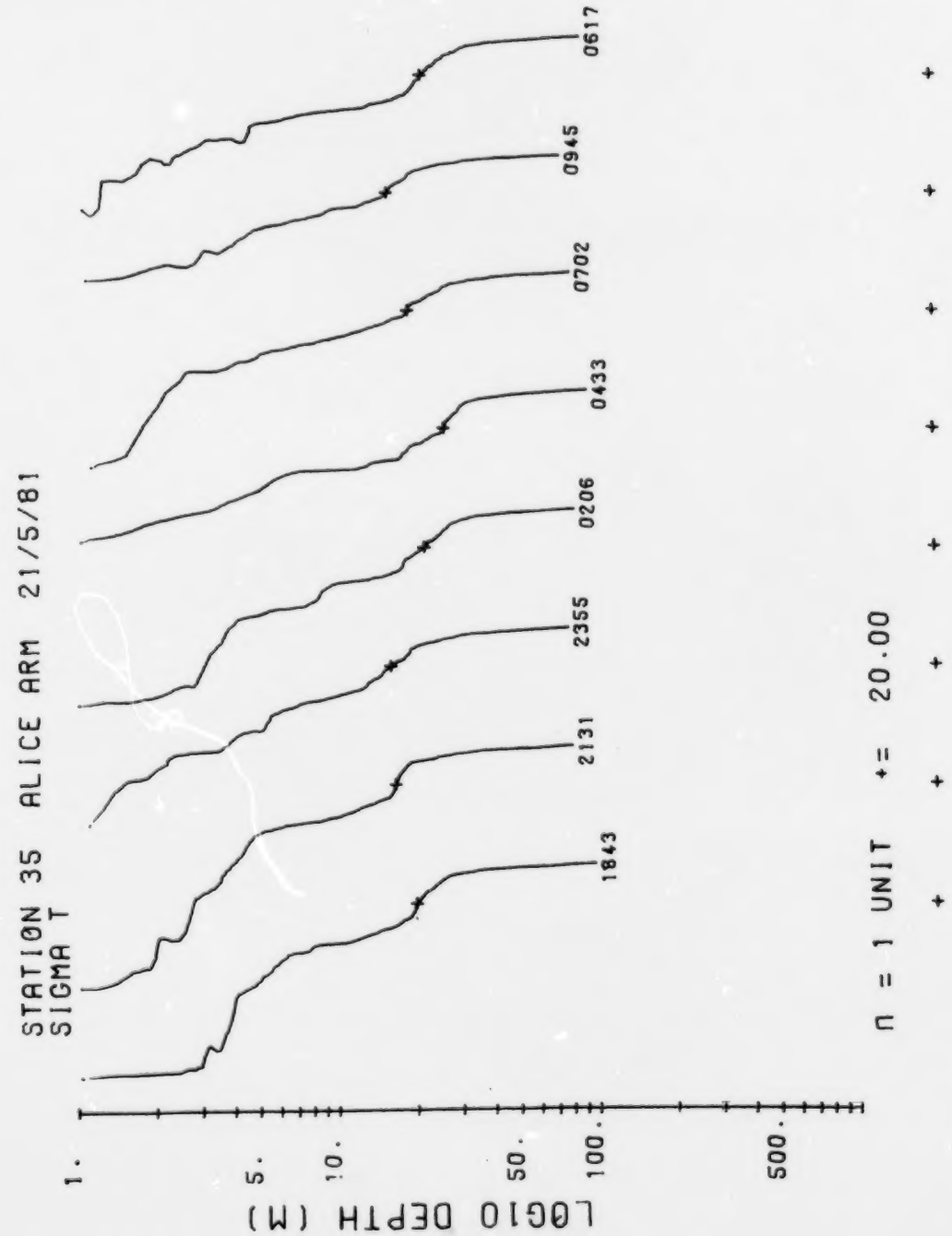

STATION 33 ALICE ARM MAY 81
21 1909
23 0536
23 0712
DEPTH (M)
0.
20.
40.
60.
80.
100.
120.
140.
160.
180.
200.
6.00 M
DISPLACEMENT

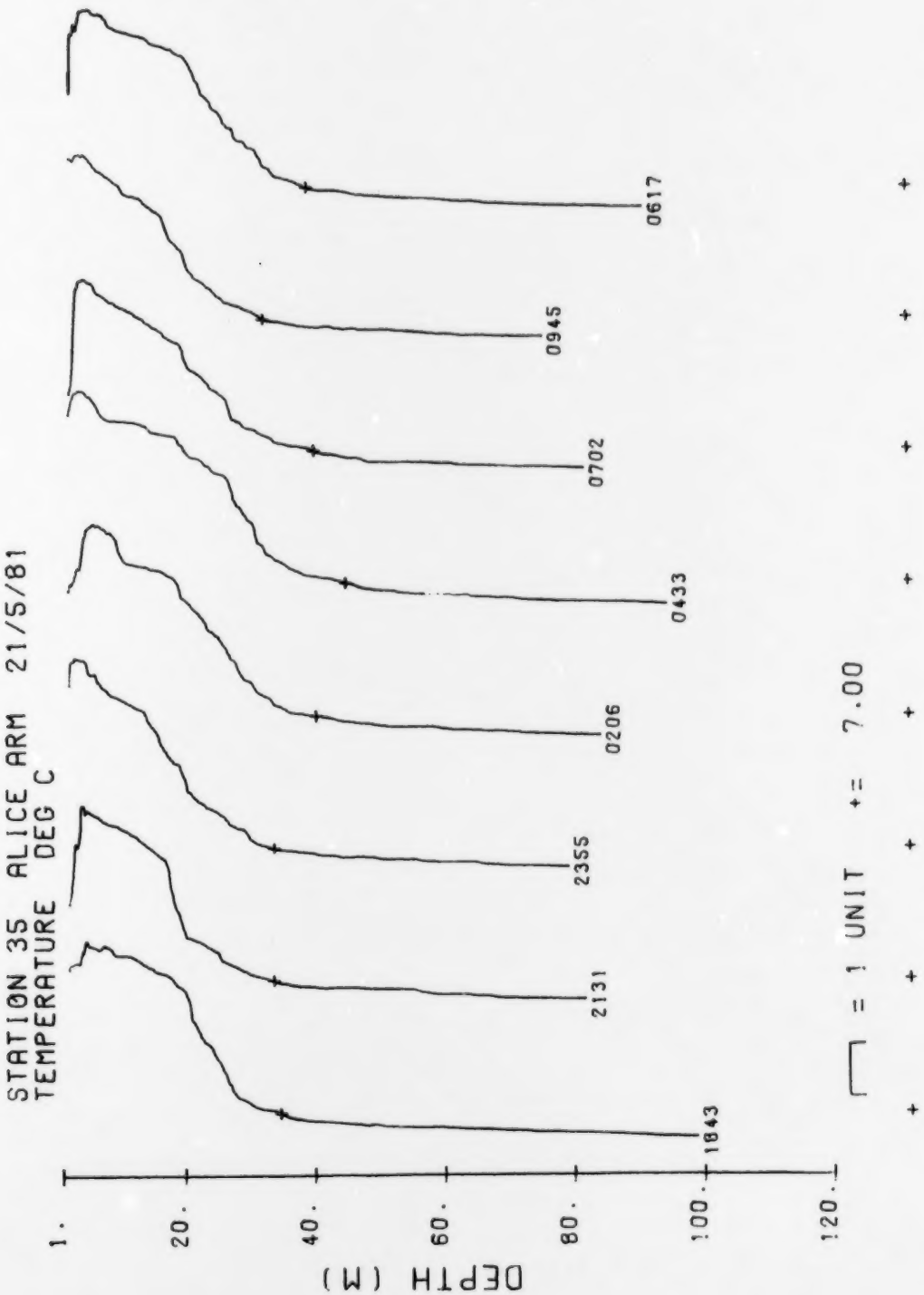
SET G: STATION 35 21/5/81

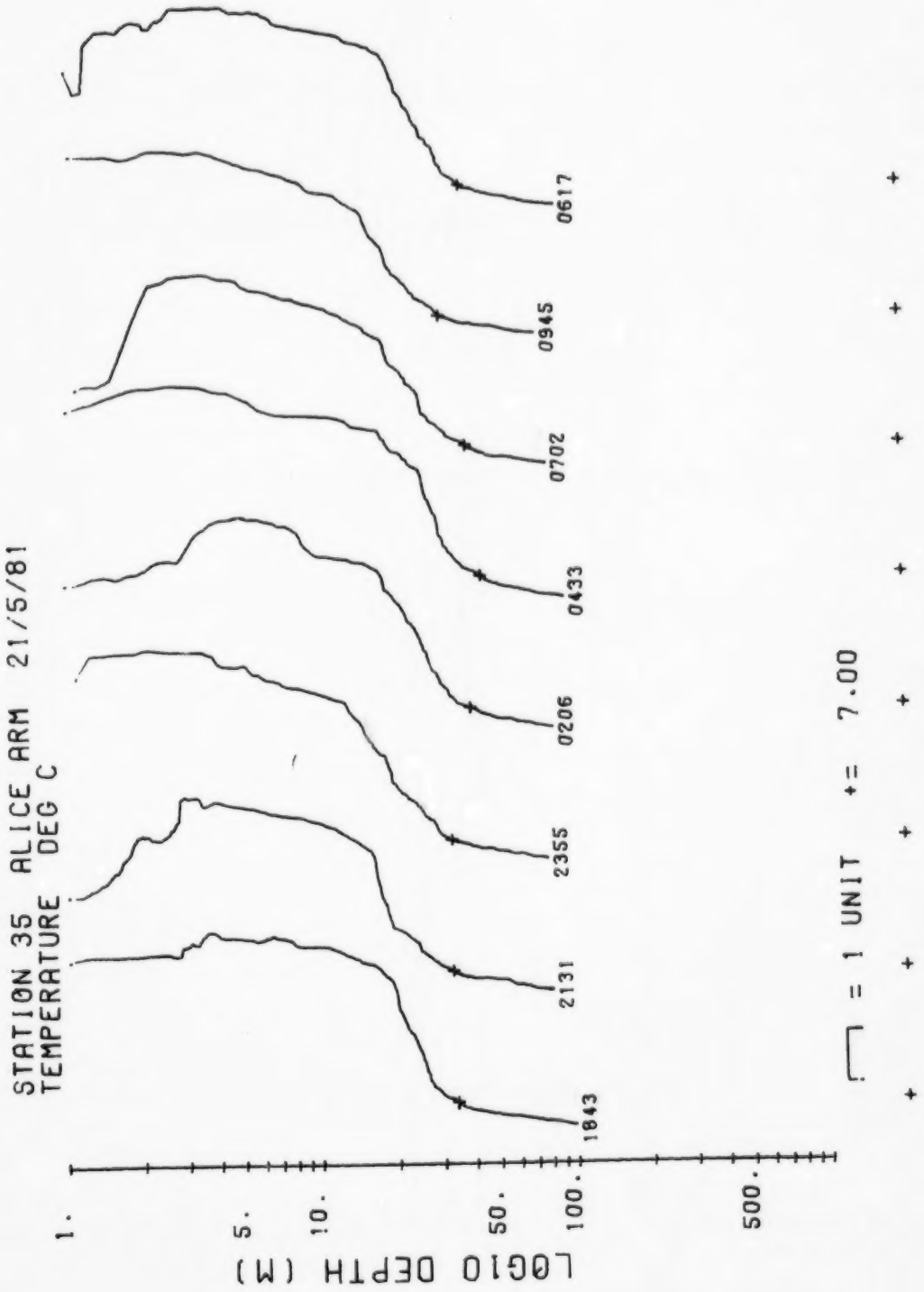

STATION 35 ALICE ARM 21/5/81
SALINITY 15 PPT/IN
DEPTH (M)
1.
20.
40.
60.
80.
100.
120.
1843
2131
2355
0206
0433
0702
0945
0617
n = 1 UNIT += 25.00

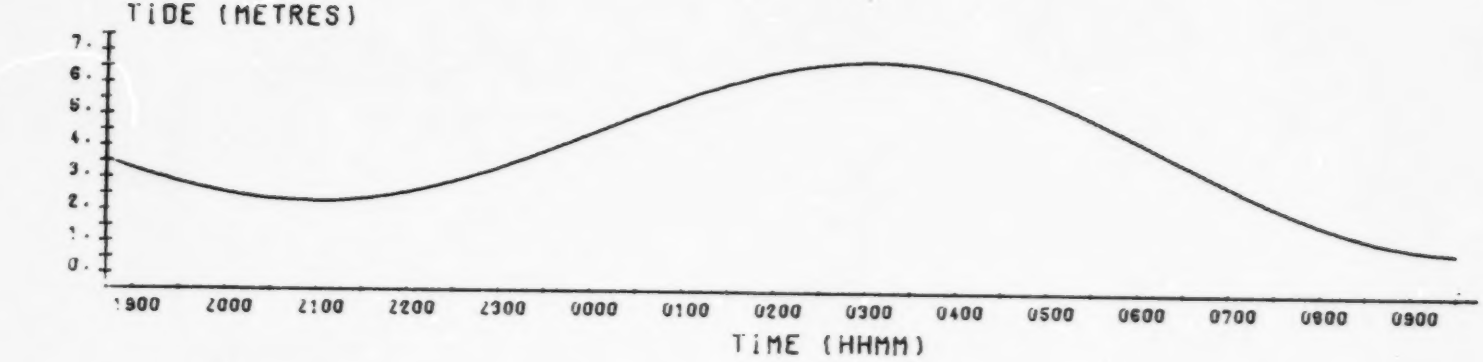

STATION 35 ALICE ARM 21/5/81
SALINITY 15 PPT/IN
1843
2131
2355
0206
0433
0702
0945
0617
n = 1 UNIT += 25.00
LOG10 DEPTH (M)
1.
5.
10.
50.
100.
500.

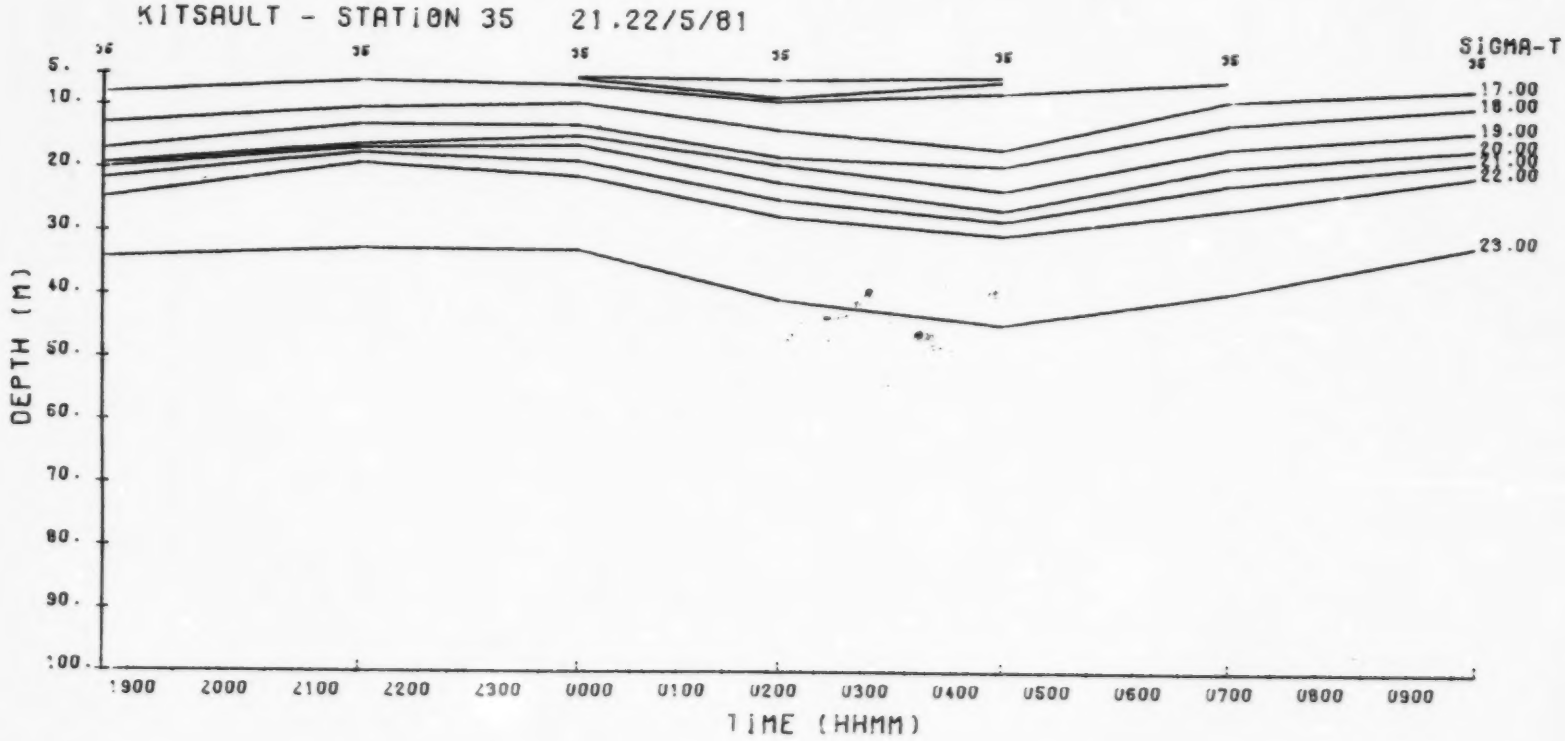

STATION 35 ALICE ARM 21/5/81
SIGMA T
1843
2131
2355
0206
0433
0702
0945
0617
DEPTH (M)
1.
20.
40.
60.
80.
100.
120.
n = 1 UNIT += 20.00

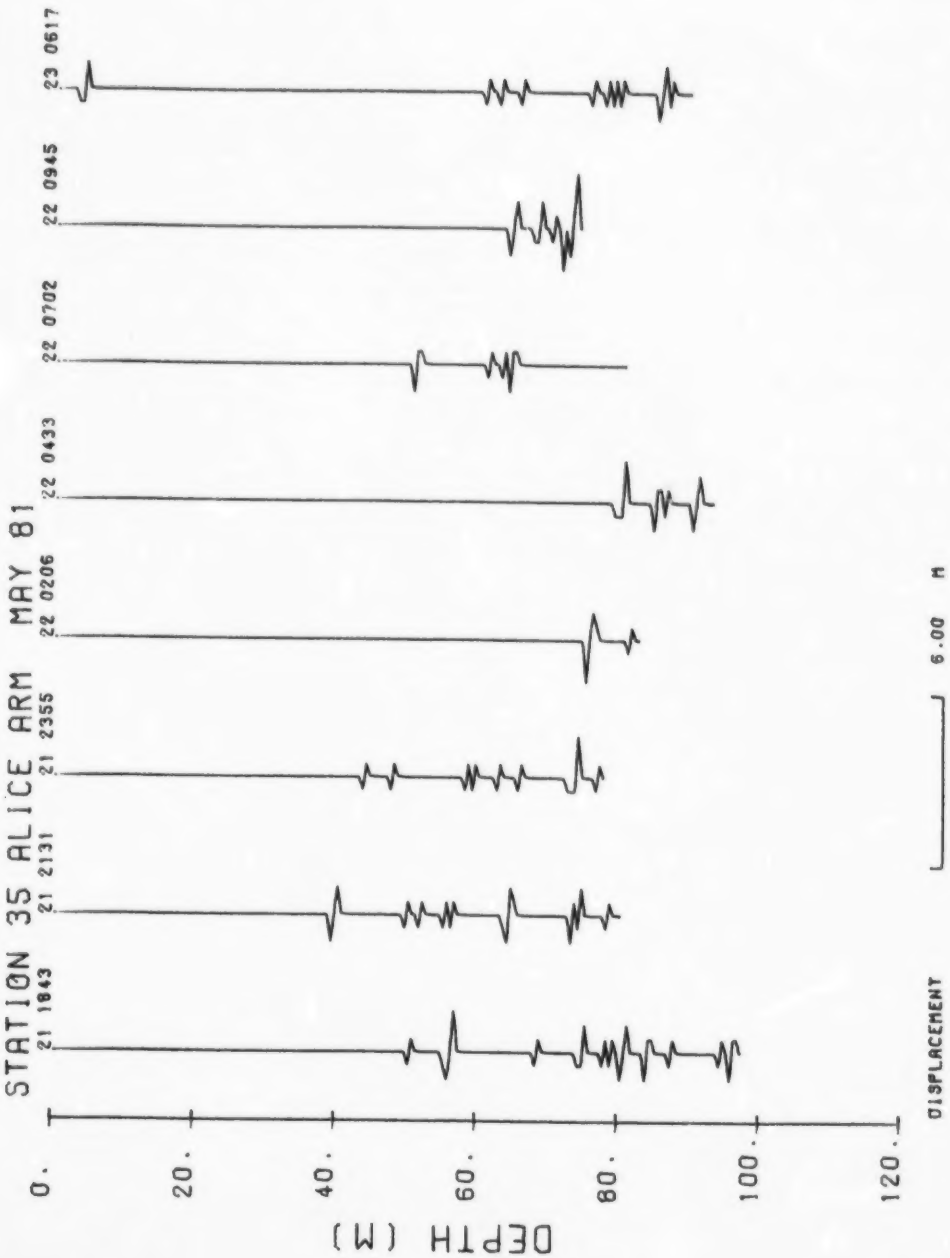

STATION 35 ALICE ARM 21/5/81
SIGMA T
1843
2131
2355
0206
0433
0702
0945
0617
1.
5.
10.
50.
100.
500.
LOG10 DEPTH (M)
n = 1 UNIT += 20.00


STATION 35 ALICE ARM 21/5/81
TEMPERATURE DEG C
DEPTH (M)
1.
20.
40.
60.
80.
100.
120.
1843
2131
2355
0206
0433
0702
0945
0617
= 1 UNIT += 7.00


STATION 35 ALICE ARM 21/5/81
TEMPERATURE DEG C
1843
2131
2355
0206
0433
0702
0945
0617
1.
5.
10.
50.
100.
500.
LOG10 DEPTH (M)
= 1 UNIT += 7.00


TIDE (METRES)
7.
6.
5.
4.
3.
2.
1.
0.
1900
2000
2100
2200
2300
0000
0100
0200
0300
0400
0500
0600
0700
0800
0900
TIME (HHMM)


KITSAULT - STATION 35 21.22/5/81
SIGMA-T
35
17.00
18.00
19.00
20.00
21.00
22.00
23.00
DEPTH (M)
5.
10.
20.
30.
40.
50.
60.
70.
80.
90.
100.
1900
2000
2100
2200
2300
0000
0100
0200
0300
0400
0500
0600
0700
0800
0900
TIME (HHMM)


STATION 35 ALICE ARM MAY 81
21 1843
21 2131
21 2355
22 0206
22 0433
22 0702
22 0945
23 0617
0.
20.
40.
60.
80.
100.
120.
DEPTH (M)
DISPLACEMENT
6.00 M